DOCUMENT RESUME

ED 084 764 EC 060 683

AUTHOR	Karagianis, L. D.; Merricks, D. L.
TITLE	Where the Action Is: Teaching Exceptional Children.
INSTITUTION	Memorial Univ., St. John's (Newfoundland).
PUB DATE	Sep 73
NOTE	560p.
EDRS PRICE	MF-$0.65 HC-$19.74
DESCRIPTORS	Educational Methods; Educational Planning; *Educational Programs; *Educational Trends; *Exceptional Child Education; Gifted; Handicapped Children; Historical Reviews; *Literature Reviews; *Research Reviews (Publications)

ABSTRACT

Presented are 40 readings and research reviews on special education services for handicapped and gifted children. Examined in an overview are aspects of special education such as approaches used in different countries, integration, labeling, team teaching, and remedial reading. The culturally different child is described in terms of deprivation, disadvantagement, programs, and disparities between urban and suburban schools. Areas reviewed in relation to learning disabilities encompass assessment, teacher effectiveness, the concept of perceptual deficit, and myths in remedial education. Speech and hearing problems are considered with readings on speech disorders and corrections, articulatory competency and reading readiness, and sociological/psychological factors associated with hearing loss. The gifted child is seen to benefit from identification by counselors, a broadened concept of giftedness, creative expression techniques, and program planning. Mental retardation is discussed in an overview and in relation to community expectation, use of theories of J. Piaget in a program for trainable retarded students, a work study program, and a job readiness check list. The visually impaired are featured in readings on play and intellectual development, self concept, management of young deaf blind children, approaches to teaching partially sighted children, and "learning through listening." Staff expectations, integrated classrooms, architectural barriers, readjustment of paraplegics to the community, and the need to feel human are the subjects of readings on the physically handicapped. Readings on emotionally disturbed children focus on history, the community, teacher competency, and a curriculum for disordered behavior. (MC)

FILMED FROM BEST AVAILABLE COPY

ED 084764

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

WHERE THE ACTION IS:

[illegible] EXCEPTIONAL CHILDREN

Karagianis and Merricks

EC 060 685

ED 084764

WHERE THE ACTION IS:

Teaching Exceptional Children

by

L. D. Karagianis

D. L. Merricks

Published by the Division of Public
Relations for the Division of Summer
Session and Extramural Studies,
Memorial University of Newfoundland,
St. John's, Nfld.

September, 1973

Cover credit:
Mr. W. Hewitt, E.T.V.C.

DEC 11 1973

TABLE OF CONTENTS

CHAPTER	TITLE	AUTHOR	PAGE
1.	Introduction	D.L. Merricks	1
2.	The Culturally Different Child	L.D. Karagianis	58
3.	Learning Disabilities	M.J. O'Neill	120
4.	Problems in Speech and Hearing	H.H. Way	193
5.	The Gifted Child	L.D. Karagianis	267
6.	Mental Retardation	D.L. Merricks	318
7.	Visual Impairment	G.H. Jeffrey	378
8.	The Physically Handicapped Child	L.D. Klas	443
9.	Emotional Disturbance	N.W. Garlie	506

CREDITS

Articles in this book of "Special Readings" have been reprinted with permission from the following Journals:

CHAPTER I

1. Villeneuve, Paquerette, "Education for Handicapped Children", *Organization of Special Education for Mentally Retarded*, Twenty-third International Conference on Public Education held at Geneva, 1960.

2. Kendall, David, "Towards Integration", *Special Education in Canada*, November, 1971, pp. 19-33.

3. Kierans, Sister Mae, "Special Education – An Experiment in Open Space and Team Teaching", *Special Education in Canada*, January, 1971, pp. 33-34.

4. Kershaw, Joan, "Opinion – My Own", *Special Education in Canada*, May, June, 1972, p. 11.

5. Narang, H.L., "Characteristics of a Remedial Teacher", *Special Education in Canada*, May, 1971, p. 18.

6. MacKinnon, F.A., "A Message to: Canadian Members the Council for Exceptional Children", *Special Education in Canada*, November, 1969, pp. 17-21.

CHAPTER II

1. Kallan, Cynthia A., "Privation or Deprivation: A Discussion on the "Culturally Deprived" Child", *Journal of Learning Disabilities*, Volume 3, Number 1, January, 1970, pp. 24-29.

2. Cheyney, Arnold B., "Teachers of the Culturally Disadvantaged", *Exceptional Children*, October, 1966, pp. 83-88.

3. Dial, David E., "Programs and Planning for the Disadvantaged", *School and Community*, May, 1968, p. 8.

4. Martin, W.B.W., "Disparities in Urban Schools", *The Poor at School in Canada*, Canadian Teachers' Federation, May, 1970, pp. 1-23.

CHAPTER III

1. Lovitt, Thomas C., "Assessment of Children with Learning Disabilities", *Exceptional Children*, December, 1967, pp. 233-239.

2. Rappaport, Sheldon R. and Shirley R. McNary, "Teacher Effectiveness for Children with Learning Disorders", *Journal of Learning Disabilities*, Volume 3, Number 2, February, 1970, pp. 15-23.

3. Zach, Lillian and Judith Kaufman, "How Adequate is the Concept of Perceptual Deficit for Education?", *Journal of Learning Disabilities*, Volume 5, Number 6, June/July, 1972, pp. 36-41.

4. Silberberg, Norman E. and Margaret C. Silberberg, "Myths in Remedial Education", *Journal of Learning Disabilities*, Volume 2, Number 4, April, 1969, pp. 34-42.

CHAPTER IV

1. Committee Report ASNA Committee on the Midcentury White House Conference, "Speech Disorders and Speech Correction", *Journal of Speech and Hearing Disorders*, Fall, 1951, pp. 129-137.

2. Weaver, Carl H., Catherine Furbee and Rodney W. Everhart, "Articulatory Competency and Reading Readiness", *Journal of Speech and Hearing Research*, Volume 3, Number 2, June, 1960, pp. 174-180.

3. Vernon, McCay, "Sociological and Psychological Factors Associated with Hearing Loss", *Journal of Speech and Hearing Research*, 12, 541-563, 1969.

CHAPTER V

1. Harrison, Edna L., "The Counselor's Role in the Early Identification of Gifted Children", *Personnel and Guidance Journal*, May, 1961, pp. 735-738.

2. Torrance, E. Paul, "Broadening Concepts of Giftedness in the 70's", *Gifted Child Quarterly*, Winter, 1970, pp. 199-208.

3. Hunter, Elizabeth, "Fostering Creative Expression", *Childhood Education*, February, 1968, pp. 369-373.

4. Plowman, Paul D., "Programming for the Gifted Child", *Exceptional Children*, March, 1969, pp. 547-551.

CHAPTER VI

1. Stevens, Harvey A., "Overview", Harvey A. Stevens and Rick Heber (Editors), *Mental Retardation*, Chicago: The University of Chicago Press, 1964, pp. 1-15.

2. Reichard, Cary L., "Community Expectations of the Mentally Retarded", *Focus on Exceptional Children*, Volume 1, Number 9, pp. 186-187.

3. Whyte, Lillian, "Piagetian Theory: Implications for Building Curriculum for the T.M.R.", *Special Education*, March-April, 1972, pp. 17-24.

4. Ruby, Winston, "The Work-Study Program", *The N.T.A. Journal*, April, 1971, pp. 9-13.

5. Kidd, John W., "A Job Readiness Evaluation Check List", *Exceptional Children*, April, 1967, pp. 581-583.

CHAPTER VII

1. Tait, Perla, "Play and the Intellectual Development of Blind Children", *The New Outlook*, December, 1972, pp. 361-369.

2. Davis, Carl J., "Development of the Self-Concept", *The New Outlook*, February, 1964, pp. 49-51.

3. Stein, Laszlo K. and Mary Briggs Green, "Problems in Managing the Young Deaf-Blind Child", *Exceptional Children*, February, 1972, pp. 481-484.

4. Stephens, Thomas M. and Jack W. Birch, "Merits of Special Class, Resource, and Itinerant Plans for Teaching Partially Seeing Children", *Exceptional Children*, February, 1969, pp. 481-485.

5. Brothers, Roy J., "Learning through Listening: A Review of the Relevant Factors", *The New Outlook*, September, 1971, pp. 224-231.

CHAPTER VIII

1. Kerr, Nancy, "Staff Expectations for Disabled Persons: Helpful or Harmful", *Rehabilitation Counseling Bulletin*, December, 1970, pp. 85-94.

2. Mullins, June B., "Integrated Classrooms", *Journal of Rehabilitation*, March-April, 1971, pp. 14-16.

3. Tuscher, James and Gary C. Fox, "Does the Open Door Include the Physically Handicapped", *Journal of Rehabilitation*, September-October, 1971, pp. 10-13.

4. Cogswell, Betty E., "Self-Satisfaction: Readjustment of Paraplegics in the Community", *Journal of Rehabilitation*, May-June, 1968, pp. 11-13.

5. Sutherland, Prudence A., "On the Need of the Severely Handicapped to Feel that They are Human", *Journal of Rehabilitation*, September-October, 1968, pp. 28-30.

CHAPTER IX

1. Kanner, Leo, "Emotionally Disturbed Children: A Historical Review", *Child Development*, XXXIII (1962), pp. 97-102.

2. Barbe, Walter B., "Locating Children with Emotional Problems", *Childhood Education*, Volume 30 (1953) pp. 127-130.

3. Hewett, Frank M., "A Hierarchy of Competencies for Teachers of Emotionally Handicapped Children", *Exceptional Children*, XXXIII (September, 1966), pp. 7-11.

4. Rhodes, William C. ."Curriculum and Disordered Behaviour", *Exceptional Children*, Volume 30, 1963, pp. 61-66.

CHAPTER I

INTRODUCTION

by

David L. Merricks

What does the term "Special Education" mean to you? For some, it is special materials for a child who is experiencing difficulty with his lessons. For others, it is special procedures for these children. And, for still others, it is special teacher training programs for teachers of exceptional children. In actuality, special education is all of these and more. It is teacher training, materials, facilities, procedures, curricula, as well as a philosophy of teaching that allows the teacher to identify the limitations of his or her students, prescribe the appropriate compensatory experience while reinforcing and emphasizing his or her abilities.

Special education is not limited to Canada and/or the United States, but is a worldwide endeavor to enhance the life-style of exceptional children. The following excerpt from a book, Education for Handicapped Children?, by Paquerette Villeneuve (1970) should help provide you with an understanding of some of the educational practices for exceptional children within selected countries.

EDUCATION FOR HANDICAPPED CHILDREN

Paquerette Villeneuve

From: A Unesco publication, Organization of Special Education for Mentally Retarded Children, Twenty-third International Conference on Public Education held at Geneva, 1960.

Special Education in Hungary

In Hungary, mentally deficient children are transferred to medico-pedagogical establishments on the recommendation of transfer boards. In May each year, these boards examine those children who, as they cannot keep up with ordinary instruction, may be suffering from mental deficiency. The board members are a neurologist, a specialized educator, and the head teacher or teacher of the school the child attended hitherto.

A decision to transfer is based on the overall picture given by the following examinations: a medical examination of the nervous system, an educational examination (language, reading, writing, arithmetic and conduct), a psychological examination, investigation of environment, drawing tests, play tests and intelligence tests, and tests of association. In places where the number of educable mentally deficient children reaches fifteen, a medico-pedagogical class is attached to the primary school. In places where there is no special education for the mentally deficient, they are sent, whenever possible, to regional centres. Pedagogical methods are determined by the rules of socialist didactics, but within these limits several specialized methods are used, especially in the education stage: education through movement and rhythm, adaptation to environment, language development, etc. A method of fundamental importance is considered to be demonstration, which stimulates activity and education for work, through work. In all schools and educational establishments, parents' associations ensure the collaboration of families in the education of their children.

Vocational occupation centres, under the auspices of the Ministry of Public Health, are attached to State agricultural concerns. They provide a home, under the direction of a specialized educator, for young mentally deficient persons employed on the farm.

Special Education in Japan

In Japan, the boards of education of cities, towns or villages are obliged to submit all children entering the primary school to a medical examination, during which an attempt is made to identify the mentally deficient by means of intelligence tests, examination of children's personalities, mental aptitudes, social maturity, etc. Teachers endeavour through their educational activities to identify mentally deficient children needing special education.

There are special classes in primary and lower secondary schools, and special schools which include both day and boarding schools. The curriculum is not divided up into separate lessons, but is mainly based on children's practical experience. Various means are employed to encourage the parents of mentally deficient children to co-operate in the education of their children, through parents' associations, by home visiting, and participation by the parents in school events. Out of 5,000 young mentally deficient persons who have attended special classes, about 70 per cent have obtained employment.

Special Education in Sweden

In Sweden, there are special preparatory schools for mentally deficient children of pre-school age (under 7 years). At compulsory school-age, children who cannot follow the course in ordinary classes or in special education belonging to the regular elementary schools are transferred to schools or classes for the mentally deficient.

Instruction is adapted to the capacity of the children and is highly individualized. The aim is to make the pupil as fit for everyday life as possible and to adapt him socially. A lot of time is devoted to manual occupations and in some classes they represent more than half the time-table. A mentally deficient child does not leave school before he has obtained proper work or suitable arrangements have been made for him. A large percentage of special school leavers become able to support themselves: an investigation covering the period 1946-50 showed that about 40 per cent were completely self-supporting and 47 per cent partially so.

Since 1960, when the above information was obtained, a notable development has occurred in the education of mentally deficient children in Sweden. Large boarding schools for mentally handicapped children are no longer built. Children attend special classes at ordinary schools and live in small separate houses nearby. Each of these is occupied by a 'family' with 'parents' looking after five mentally deficient children; the buildings are scattered among other houses. The children live there during the week and rejoin their own families at week-ends. As they thus spend three nights a week at home, the children remain in close contact with their own families, which is very important for the mentally handicapped. This arrangement also frees the 'week-day family' from Friday morning until Monday afternoon. Parents prefer this system. It is in fact easier for them in case of need to contact the couple looking after their child than to apply to an unknown person in a large institution. The way of life in these small 'family houses' is also far more suitable for small handicapped children.

It may also be noted that severely mentally deficient children who, under the previous system, did not attend school, now benefit from an education in training establishments (since 1968) where they learn to manage for themselves.

Special Education in the U.S.S.R.

In the Soviet Union, children are placed under observation in the regional or town polyclinics before they are sent to special schools. They are then examined by reception and selection boards set up in the special schools. These boards consist of the director of the educational establishment, specialists in speech defects, teachers of deficient children and neurologists. In doubtful cases children are admitted provisionally to the special school, where a thorough study of their behaviour is made.

'Research', states Professor D'iatchkov in the article already quoted, 'has fully confirmed the view that mental retardation is not a stable, unchanging condition. Under certain conditions, the overall development of retarded children can be significantly improved. Research has shown that particularly noticeable shifts in the personality development of pupils take place during adolescence, from the moment of their inclusion in educational and productive labour.'

Observation of the child includes: his educational achievement; determination of his abilities and practical aptitudes; the psychological causes of his difficulties of assimilation and acquisition; study of the child's language difficulties; study of the child's ability to respond to his immediate surroundings; study of the child's behaviour at play; observation of the child from the psychological point of view; and somatic examination.

Instruction is organized according to special syllabuses, with textbooks published for deficient children taking into account the degree of knowledge they are capable of acquiring. Hand-work is done in the apprentice workshops. Courses are provided for parents on the role of the home environment in the education of mentally deficient children.

All mentally deficient persons who are able to work, even if only in the most elementary kind of labour, obtain employment either in factories, on collective farms or in 'artels' for the disabled. Those who find it most difficult to adapt are sent to special homes administered by the social welfare authorities.

Teachers working in 'auxiliary' schools (as special schools are called in the U.S.S.R.) receive special training in faculties for the study of mental deficiency, at Moscow, Leningrad or Kiev. The course takes five years and leads to a special diploma. Teachers and supervisors working in auxiliary schools receive a salary supplement of 25 per cent.

Special Education in the United Arab Republic

In the United Arab Republic, psychological clinics attached to the universities, faculties of education, charitable institutions, the vocational training centres of the Ministry of Labour and Social Affairs, and the higher council for the welfare of youth are all closely concerned in the detection of mentally deficient children.

Under the law on primary education of 1956, the education authorities are obliged to open classes for mentally deficient children if their numbers justify it. Schooling is compulsory for educable mentally deficient children where there are special classes or schools in their locality. In places where there are no special classes or schools, the Ministry of Labour and Social Affairs sets up vocational training centres.

Education in special classes and schools is individually adapted to the tastes and abilities of each child. Teaching aids and practical methods are used. Instruction aims above all at giving mentally deficient children basic skills (reading, writing, and arithmetic) and a certain amount of knowledge, mainly vocational, which will help them in everyday life. Special education teachers receive special training in supplementary divisions of general and rural teacher-training schools, which takes two years and leads to a supplementary division diploma which gives the right to appointment in a special education establishment.

Recruitment of teachers and supervisors for special education is facilitated by the large number of institutes which train teachers for this type of education. These teachers and supervisors have been so successful that other Arab countries have engaged some of them for their own institutions.

Special Education in the United States of America

In the United States, educational placement of mentally retarded children is mainly a responsibility of the schools, although there is an increased effort to involve professional individuals from fields such as medicine or social welfare in diagnosing and recommending placement, especially where the children are severely retarded or have multiple handicaps. Boards of education often employ test specialists to examine children who have been referred to them by the teachers, principals, parents or other agencies. In many communities the boards of education do not have the specialists to test these children, and in such cases, some State departments of education have staff to give psychological tests; in other cases, children are examined in university or community clinics. All but one of the State departments of education now have at least one person concerned with the education of 'exceptional' children and eighteen States have specialists who give full-time attention to the education of mentally retarded children.

Both public and private local schools increasingly provide special classes for mentally retarded children, in elementary and secondary levels. Although there is currently much experimentation in the organizing of special education, the trends seem to be in the direction of day school programmes in public and private schools. A graduate fellowship programme has been instituted. While the ultimate goal is to increase the number of classroom teachers of the mentally retarded, its immediate purpose is to provide fellowships for persons who will become instructors in colleges and universities to conduct the special training of teachers of the mentally retarded, and also supervise State and local school systems responsible for educating mentally retarded children.

Special Education in Uruguay

In Uruguay, children suspected of mental deficiency are examined by the psycho-pedagogical laboratory of the technical department of the National Council for Primary Education and Teacher Training and by the psychological studies branch of the department of school health of the Children's Council. They are sent there by their parents, teachers or doctors. The psycho-pedagogical laboratory also carries out periodical examinations in all the schools of the capital. Each case is examined from its psychological, medical, social and educational aspects.

The National Council for Primary Education and Teacher Training has organized special classes for slow and backward children since 1927, in localities where there are enough pupils markedly below normal whose mental deficiency has been ascertained by the psycho-pedagogical laboratory. The course given includes periods of training for basic mental operations and activities which help to develop these operations. The teaching of the fundamental skills such as reading, writing and arithmetic is preceded by practical exercises. The whole course has a practical and vocational aim.

The technical department of the National Council for Primary Education and Teacher Training has drawn up a plan for the reorganization of special education, under which existing services will continue and encouragement will be given to the establishment of a larger number of special classes. For the benefit of slow learners, an endeavour is being made to successfully introduce into ordinary primary schools the general use of certain techniques developed for mentally deficient children. The number of teachers in special education is 200.

A Class for Mentally Deficient Children in a Regular School in Canada

In Canada, I visited a class for mentally deficient children in a public regional school, modern, spacious and gay. The great majority of the pupils came from rural areas. 'Handicapped children are even more bewildered than others when faced with the over-extensive range of the curriculum,' I was told by Mr. Bonetto, the director of the service for maladjusted children attached to this school. 'My purpose is to prepare them for the situations they will meet with in the world of work rather than at school. Here, these children have welfare workers, teachers, psychologists, nurses to look after them; they will be far less protected when they have to make their own way in life. So, once they are attending school, we mix them with ordinary children. It is a good thing to have a handicapped child in a workroom of twenty-five ordinary children.

'From the age of 13, we aim at initiating them into practical life. When the children learn to write, it is so that they may know how to apply correctly for a job. We have been successful in finding jobs for young people where they can earn $50 a week.' What chiefly worries Mr. Bonetto is the demand for increasingly specialized manpower; he fears that his pupils, at present adequately adapted to the situation, can soon no longer be so. For the time being, however, he is satisfied with the results achieved. It is the school itself that finds employment for its mentally deficient pupils.

The argument of "Segregation versus Integration" of classes for exceptional children has been with us for a long time. One of the most interesting arguments to come along is that penned by Dr. David Kendall. While he is Chairman of the Department of Special Education, University of British Columbia, Canada, Dr. Kendall shows great insight into this problem as it relates to all of North America.

TOWARDS INTEGRATION

David Kendall[i]

I: Clearing the Ground

INTRODUCTION

In this article I shall try to examine critically some basic concepts in special education. In particular I shall be concerned with the arguments for and against segregated special classes and schools for exceptional children[ii], and with the relationship between special education and general, or non-special education.

---

[i] Chairman, Dept. of Special Education, University of British Columbia.

[ii] I am defining exceptional children in this article as all children whose development, learning and social adjustment is adversely affected as a direct or indirect result of mental or physical deviations. I am thus excluding the gifted from my definition. I have used the terms exceptional, impaired, disabled, deviant and handicapped as if they were synonymous.

Because - like most of us - I have to admit to a certain amount of bias in my attitudes towards these questions, and because my biases are not always fully supportable by scientific evidence and are based upon value judgments and opinions rather than upon easily demonstrable facts - because, in a word, they are largely subjective - I have thought it best to use the first person singular rather more freely than convention, modesty and good manners usually permit. This is a personal statement: I hope that you will react to it as such.

Perhaps I can best summarize my point of view by saying that I believe that in an ideal educational system there would be no need for special education. We wouldn't need to single out particular children for special treatment, for each child would be on an individualized program. Above all, we wouldn't exclude children from school, or put them into inferior educational settings, simply because they didn't fit the system. It would be possible for each child to progress at the rate that was right for him, and most important of all, each one of us, children as well as adults, would accept and respect the wide range of individual differences that inevitably occurs in any population. Indeed, these differences would intrinisically have value within the system, and not be a damned nuisance as they often are at present.

"But this is all far too idealistic" you may say. "Life" (i.e. the Toronto/Regina/Vancouver/ wherever School District) "isn't like that". Maybe. But I submit that unless we are prepared to examine and evaluate what it is we actually achieve in any of our existing programs; unless we are prepared to question methods, techniques and practices which have acquired a patina of respectability by their age or novelty rather than their proven usefulness, then we are not being particularly realistic either. And sure as hell we'll never make much progress. Here I believe that it helps to have some rather definite (if idealistic) aims, and to be prepared to state these as clearly as possible. I am quite enough of a realist to know that we shan't reach our goals tomorrow or the next day - or ever, probably. Certainly we are going to have to work out some compromises. But if we start with the compromises, then we shall be driven by expediency rather than reason. And this is exactly the situation of which I am complaining. Let me give an example. An argument that is often advanced in favour of segregating mentally retarded or physically handicapped children in special classes or schools relies upon observations of the attitudes and behaviour of the 'normal' towards the 'exceptional'. "They tease them. They make fun of them. Children are very cruel." Now certainly one answer to this problem is to separate the two groups of children. But what happens when we do this? True, we may have reduced temporarily the amount of teasing. But we haven't really resolved the underlying situation, the reasons why children are teased or made fun of, and by our action have more or less ensured that this won't be resolved. Both groups are likely to grow up with rather fixed attitudes towards themselves and the others. In this case the expedient solution - separation - has almost certainly made things worse. I maintain that we ought also to look at the basic problem here, the circumstances under which adverse peer group attitudes are formed towards children with disabilities, and the circumstances under which these attitudes and their related behaviours can be modified. If we did this I think that we should be likely to move in a totally opposite direction, that is we should have to work out something directly involving 'normal' and 'disabled' children in a common situation. Hence the title of my paper: 'Towards Integration'.

We can apply much the same sort of approach to academic learning. With children who are learning failures in the ordinary school situation we should not immediately decide that they will learn better in some other setting such as a special class. Rather we should try to examine as carefully as we can the reasons for their learning difficulties - including looking at what we are expecting of children in the school situation, and what we - and they - can do about it.

I firmly believe that many of our practices in special education, while admittedly doing something for children who were previously neglected and ignored, have, with the best of motives on our part, often had the effect of eroding children's feeling of self worth and contributing in some measure to the working out of numerous self fulfilling prophecies about their future. But I don't think that it is enough to make criticisms. We must also consider some solutions, some of the directions for action which can be taken now and not have to wait till tomorrow.

Starting points:

Most standard North American educational definitions of exceptionality in children require that three criteria be met: (a) deviation from normal development; (b) inability to make progress in the regular school system and (c) need for special educational services. For example, Dunn's definition states that exceptional pupils are those "who differ from the average to such a degree in physical or psychological characteristics ... that school programs designed for the majority of children do not afford them opportunity for all-round adjustment and optimum progress ... and who therefore need either special instruction or in some cases special ancillary services, or both, to achieve at a level commensurate with their respective abilities." (Dunn, 1963 p. 2)

An analysis of this composite definition shows that three different kinds of judgment are required before a child can be identified as exceptional and thus qualify for a ticket in a special education program. (1) His deviant physical and/or psychological characteristics must somehow be assessed in a reliable and meaningful way, and must be shown to be related (2) to sub-optimal progress in an ordinary school program. Finally (3) an alternative program - special education - must give him a better chance of more successful achievement and development. I believe that there are serious theoretical and practical objections to each of these three criteria and to their application in school.

In the first place there is good reason to suppose that in many instances diagnostic assessments are made on the basis of inadequate, dubious or irrelevant information. We have been far too much concerned with placing children in categories according to test scores or medical diagnoses, and far too little interested in seeing how they actually behaved in learning and social situations. In a word, we have been obsessed by the need to classify and label, and have neglected the need to observe. Our practices rest partly upon the notion that there are discrete categories of exceptional children who can be identified and differentiated from one another in an educationally meaningful way. Yet this is a demonstrably false position. Unfortunately it has been built into many Provincial school systems by legislative provisions and budgetary allotments, and has been shored up from the outside by professional organizations (e.g. the divisions of CEC) and by the activities of many voluntary associations (e.g. parents' groups).

Our stress upon the deviant has two important consequences. Consider for a moment the way in which we talk about children in our programs - John is a slow learner; Bill is perceptually handicapped; Mary is emotionally disturbed. Every time we do this we reduce the whole of a child, a complex human being with an enormous variety of untapped potential, to a single, usually derogatory epithet that focuses upon his failure. In so doing we set up expectations for ourselves (and for our listeners) that he will behave, think, perform in a certain way; we communicate a miniature synopsis of past history and future probability. Moreover there is a strong likelihood that this influences, directly or indirectly, the way in which the child will learn to perceive himself, and to incorporate elements of our expectations into his way of life. He learns to play the role we have written for him. The trouble is that it then becomes very easy for us to applaud his performance in this role.

Secondly I believe that we have far too easily accepted as a necessary condition the inability of ordinary school programs to accommodate the so-called deviant child. But why shouldn't the schools be prepared to change or modify their programs? We have placed a good deal of emphasis upon the deviant characteristics of the child and have almost completely ignored the characteristics of the school system which rejects him or is considered unsuitable for him (see Lilly 1970, 1971). Yet children (or adults, for that matter) are never disabled in isolation; as Barker and his associates argued many years ago, both disability and handicap are culturally relative terms, whose significance can only fully be understood in the light of the prejudices, attitudes and expectations of the society in which the indivual lives (Barker et al 1953). Clearly the school is such a society and is in part responsible for the learning and adjustment disabilities experienced by its members. At the risk of disturbing two of education's sacred cows, we should examine the extent to which changes in curriculum and organization are possible, and can better serve the needs of all children.

In this context we have to realize that there is a direct relationship between the curriculum and organization of the ordinary school and the need for segregated programs in special education. In essence this relationship might be expressed for elementary education in this form: the more emphasis on academic skills in the curriculum and the more rigidly graded the program, the greater the number of failures and hence the greater the need for special classes. In most provincial systems over the past twenty years there has been a shift in elementary education from a strictly graded, lock-step, one-grade-per-year system towards more flexible programs which in theory at least allow most children to progress 'at their own rate'. We have perhaps seen rather less change in terms of academic emphasis - particularly in relation to reading skills. By dividing the primary grades into a number of levels it has become a little easier to allow a 'slow' child to complete in four or five years what a child working at an average rate completes in three - and without playing the snakes and ladders game of returning him to the beginning of a failed grade at the beginning of the following September. Although few systems have gone so far as to set up truly ungraded schools, by the use of a levels system; by permitting much easier movement within the school program (i.e. getting away from a fixed teaching group model); by physical planning (e.g. open area schools) which makes it easier for the freer movement of pupils to occur, it has become a little harder for pupils to 'fail' grades, and less necessary for children to be put into special education on this account.

These trends are quite apparent - even fashionable - in Canadian schools today. But school systems are notoriously resistant to fundamental change, and I suspect that some of the innovations which have been introduced are reflected more in the imagination of the administrators than in the practices of teachers. Like the open area section of an elementary school visited recently where the children and the teachers didn't move out of their original class groupings, and functioned almost as if the walls were still there. Or the school where the district superintendent has talked proudly of his 'ungraded' program, but where the labels on the classroom doors still said "Miss Jones, Grade 1, Division 1".

Even so, it seems to be clear that the direction in which our elementary and secondary schools are moving - however slowly - is towards greater flexibility, and greater opportunity to accommodate a larger range of children within the regular program. This has tremendously important implications for special education and special educators. The writing is already on the wall; we've been too busy setting up programs to read it.

Thirdly, we should be hard put to demonstrate positive social or educational benefits to the child from placing the child categorized as exceptional in the most common type of special education program available in Canada, the special class. I do not wish to belabour a point that has been made elsewhere (Johnson 1962; Goldstein et al 1965; Dunn 1968). Research in the United States has to-date signally failed to demonstrate any academic advantage to slow learning and mildly retarded children from being placed in special classes on the basis of a single descriptive label. Although we should obviously be cautious in applying generalizations from these American studies to Canadian school systems, it seems unlikely that there would be any major differences between the two systems. But this is only a guess: we badly need some informed Canadian research in this field. The point here is that we should not be satisfied with measures that may penalize a child socially without conferring upon him some clear cut advantages in other areas. Good intentions are not enough. We must be able to demonstrate that a special or remedial program is beneficial to each child receiving it. Nor should we attempt to justify a special placement on the grounds that it is fairer to the other 'normal' children to remove a troublesome or handicapped child from the class.

So far I have tried to suggest that special education programs, by their stress on some specific characteristic of the child, have tended, in relation to the normal, to exaggerate his differences and minimize his similarities. They have done this in part by the arrangements made for them in school programs - particularly by the use of segregated special classes. I should like next to examine a little more closely the special class model itself, and particularly its place as the major - and in some school systems the only - solution to the problems of children with special needs.

HISTORICAL MODELS OF SEGREGATION:

The segregated model of special education has a respectable history. Perhaps the earliest and most successful examples are to be found in the attempts to provide education for deaf and blind children. We must realize however that these children were almost invariably excluded from public (and private) education; that their primary disabilities are highly specific, relatively easy to recognize and measure, lead rather predictably to difficulties in acquiring skills important to academic learning and, in theory at least, can be dealt with by definite educational prescriptions administered by specialist teachers. Until recently, the alternatives to segregated education for blind and deaf children were gloomy or impractical: they could be tutored privately or they could be shut away at home or in institutions for the mentally defective and mentally ill.

The special schools for the blind and deaf of the nineteenth century represented a positive attempt by individuals and organizations in the society to make provisions for specific categories of children who were essentially educable, and who needed a sophisticated array of services which were not available in the emerging public schools of the day. Because it was simpler to house these services in a single setting; because funds for their support were not usually at first available from the public education system; because the incidence of these conditions was very small (for the blind and deaf combined perhaps not more than 0.10%) it is not surprising that the services developed at first in an administratively separate and physically segregated form. Even when they were brought into the fold of public education they occupied there a special status - usually in Canada by receiving direct financial support from provincial revenues rather than being funded through local school boards.

I began by saying that this has been in the main a successful model. I mean by this that it has permitted the development of sophisticated and specialized services for two well identified categories of exceptional children whose educational needs at least have been well recognized and accepted by governments and local communities. I am less sure about the educational success of the services which have been offered. The goals may have been achieved at some costs both to society and to the children themselves. I don't mean economic costs. Everyone knows that education in a residential school with a class ratio of 8 or 10 to 1 is expensive. I mean costs in terms of the social-cultural situation of children educated in this way - children who have to a large extent been cut off from their peer group and their neighbourhood culture as they have grown up and who as adults all too often seem to have been forced into an inferior sub-cultural role. At all events it is interesting to see that attempts are now being made in several schools to break out of this rigidly segregated mode: for example, the increasing number of blind students being placed in ordinary schools, both at a secondary and at an elementary level, or the attempts - for example in B.C. and the Atlantic provinces to develop "off campus" classes for deaf children in ordinary elementary schools.

APPLICATION OF THE SEGREGATED MODEL WITHIN THE PUBLIC SCHOOLS:

I have discussed the arrangements for a very tiny proportion of the 'handicapped' population because I believe that the segregated model of special education has played an altogether disproportionate and inappropriate part in the development of special services for other categories of exceptional children (Lilly 1970). Although in Canada we have avoided the worst excesses of some other systems (e.g. the United Kingsom) in this regard - probably because we have been too unwilling to accept the considerable financial cost involved - the influences of the model can still be clearly seen. I am going to consider shortly some of the different types of special class arrangement. But what are some of my objections to the special class model?

In the first place (as I have suggested earlier), isolating the child with others thought to have similar characteristics far too easily leads to derogatory social and self perceptions which in turn add to the child's handicap. Quite apart from this fundamental objection, the model is inappropriate because

(1) There is little resemblance between highly specific conditions such as blindness and deafness, and the very vague, general conditions (mental retardation; emotional disturbance; learning disabilities) which form the basis for exclusive diagnostic categories for the majority of children with specific needs in the public school system.

(2) Unlike deaf and blind children, the special educational needs of children with these global or diffuse cognitive or adjustment problems are extremely varied and heterogeneous.

(3) We cannot infer an educational prescription or technique from the descriptive labels that have been developed for the children. They don't fit into a homogeneous treatment model.

(4) The role of the teacher is different. The training of teachers of deaf children (for example) has to be directed towards the acquisition of highly specific skills and competencies. Despite the existence (particularly in the U.S.; in Canada we haven't got this far) of formidable certification programs for different categories of special education teachers, examination of the training programs shows that they are either extremely general or somewhat faddist. There is still as little agreement about how to prepare teachers of mentally retarded or emotionally disturbed children as there are about how to educate the children themselves.

(5) The number of children involved is very much greater - somewhere between 10 and 100 times, depending upon whether you are a school board treasurer or a special educator.

We might of course tackle some of these criticisms by replacing useless labels with better assessment and diagnostic techniques, and by relating these to specific educational programs. Far too often special classes have simply been a holding operation; a way of keeping children occupied and out of the way without providing them with meaningful educational programs. Here we should distinguish between two main types of special class (or, more accurately, two quite different functions of special classes): the 'terminal' special class, whose aim is to provide an alternative to regular programs throughout the child's school life, and the transitional class, whose aim is to prepare the child for replacement within the regular program, for example by supporting him through a period of stress, or by helping him through intensive remediation to develop functional skills and competencies necessary for academic learning. Each of these two types of class may, in practice, function in a strictly segregated or partially segregated fashion. For example, a special class (terminal type) of EMR children or a (transitional) special class for hard of hearing children may do physical education or art with other children in the school, and thus be regarded as partially segregated. Other classes - e.g. for children with behaviour disorders - may function in an entirely segregated way, even down to mealtimes, recess and transportation to and from the school, despite the fact that their long term goal is transitional. But mere descriptions are not enough (Brabner 1964): the term 'partially integrated' may disguise a situation where the handicapped kids are ruthlessly segregated in terms of the attitudes of teachers and other children, while a program that is segregated for educational purposes may encourage very active involvement by non-special class children in school hours as well as in recess. What is important is not the label, nor the rooms where the kids are housed during the school day, but the ways in which they are thought of and reacted to by others. Admittedly, physical separation of the exceptional doesn't usually help 'normal' youngsters to form healthy or positive attitudes towards those who are segregated, particularly when the special class in question happens to be in a shabby room in the basement. And the practice of segregation seems to encourage the 'thinking in labels' to which I referred earlier. However we are probably beginning to get away from the notion that anything is good enough for special kids: at any rate it is refreshing to see in some schools at least special classes housed in attractive rooms with excellent equipment and facilities. And it is now far more common to find administrators and teachers paying at least lip service to the notion of integration. Of course this doesn't always go very deep. I once asked a school principal who claimed that his special class kids were 'integrated into the life of the school' to tell me when the special class youngsters actually had contact with the others. After a good deal of thought, the best he could do was "on the way to and from class". I don't think that he was being dishonest about his claim. In fact he cared very much about the 'special children', and was proud to have the class in his school. But he had been unthinking about the real implications of integration (or for that matter of special education) in a school setting. As a process, integration should be seen as successful only if it helps a child develop realistic feelings of self worth.

I suspect that in Canada - as in the United States - we have made far more use of the terminal type of special class model than of the transitional, particularly for EMR and mentally handicapped children (see Ballance and Kendall 1969; also DBS 1967). I have already referred to the serious questions we must have about the usefulness or efficacy of these programs. Over the past few years it has been good to see some experimentation with transitional special classes - which seem to offer many positive features for systems that are themselves in a transitional state - without ordinary classroom teachers trained in special education, or adequate numbers of resource personnel available as consultants or remedial teachers.

I believe however, that we really have to look at the whole education system, and not just tamper with improvements to special classes, if we are to find proper solutions to the needs of exceptional children. In other words it is the isolation of special education from the mainstream of education which has been the greatest evil. The special class model (as we have developed it) has played a part in reinforcing this isolation. Yet, as I hope to show, special education itself cannot afford to remain isolated.

Before examining alternatives to the special class model, it is necessary to refer again to one factor (other than the inertia of teachers and administrators) which has kept the model going. This is the system of financing special education programs which, despite variations from one province to another, has generally been highly favourable to the special class and highly unfavourable to other alternatives. The problem seems to be that the special class is obviously the most visible, and administratively the tidiest piece of evidence that something is being done. Almost everybody who has tried to obtain services for an individual child, or to set up a new program, has encountered this difficulty. "Find some other children, form a group, then we can do something about it." Often this seems to provide the only basis for special education innovation: if a new special class can be set up, it will qualify for a grant. It is usually far harder to get support for other forms of help to children with special needs (e.g. intensive remediation or work on an individual basis).

I believe that this policy of tying special education grants to special classes has been disastrous. Moreover it has provided perhaps the largest single barrier to the development of innovative programs, especially those which are concerned with the proper integration of handicapped children into the life of the schools. Fortunately, at the local level we have ingenious administrators, principals and teachers who have sometimes been able to discover ways of bending the financial strait jacket into a more acceptable shape.

So far, I have suggested that there are both theoretical and practical objections to a segregated model of special education. The theoretical objections are mainly social-psychological in type, and refer to the way in which the child who is segregated on account of a disability tends to be viewed by others and thus comes to view himself. The practical objections on the other hand relate to the failure of most special class programs to produce good evidence that they are educationally efficacious. (Some people will feel that we should except programs using behaviour modification from this last criticism. Although I agree that published evidence in several areas (Whelan and Haring 1966; Wolf et al 1968) has provided encouraging support for the effectiveness of operant and behaviour modification techniques in specific learning situations the extent to which improvements will be generalized, and the conditions under which such generalizations will be achieved and maintained, remain as yet uncertain and incompletely documented. At this point I prefer to regard behaviour modification as a powerful instrument in the special educator's armamentarium rather than as an alternative form of special education).

There is nothing new about these criticisms of segregation. They have received powerful support from other advocates in recent years (CELDIC 1970; Dunn 1968). Indeed the view that segregation is a 'bad thing' seems to have percolated even as far as school administrators, and is reflected across the country in countless policy statements and similar documents. "The policy of the Board is to ensure that each child with special needs is as far as possible maintained within ordinary school programs in regular classrooms". Yet it has to be realized that our main thrust in special education in Canada has clearly been in the setting up of segregated special classes and special programs: "the traditional, and still effective, organization of special education programs is by full time special classes organized to achieve a specific function or functions".

There would thus seem to be a rather substantial gap between policy and practice - a situation that will hardly surprise realistic if cynical observers of the political and social scene. Cross my heart, I'm not trying to suggest that educators are being dishonest here. At least, no more so than anybody else. But I think that we need to question carefully the reasons for this gap. Perhaps we could approach this task most constructively by examining the barriers that stand in the way of more effective integration of handicapped children in ordinary school programs, and by suggesting how some of these barriers could be broken down.

THE STRUCTURE OF SPECIAL EDUCATION SERVICES:

Wilenberg (1967, 1968) and Reynolds (1962) have described the structure of special education services in essentially similar hierarchical models which arrange the services in a triangular or pyramidal form. The base of the pyramid represents the largest number of exceptional children: those who are enrolled in regular classes in ordinary schools, and who receive help directly from their classroom teachers. As we proceed up the pyramid, more direct help is provided to children in need of special services: however the number of children at these upper levels becomes increasingly smaller. Reynolds suggests two important principles in relation to the utilization of services, that children are moved up the pyramid into the more highly specialized services "only as far as necessary" and that they should be returned in the direction of the base "as soon as feasible." (op. cit. p. 368). As he points out, the more specialized programs tend to be required by children with severe or complex problems, to be more costly, to be more segregated and to become the responsibility of agencies other than the local school district (e.g. health, welfare, corrections). Of particular interest here in both Reynolds' and Willenberg's models is the emphasis on the variety of services needed, both vertically and horizontally. For example, Willenberg defines levels 1 to 5 in his nine level system as follows:

Level 1: Regular class enrolment with resource help to classroom teacher. Diagnosis and behaviour observation is the responsibility of the classroom teacher: Inservice training to regular teacher.

Level 2: Pupils enrolled in regular class after short-term tutoring for purposes of diagnosis and program planning. Resource help and aid to teacher in program adaptation. Inservice training to regular class teachers.

Level 3: Pupils enrolled in regular class with intensive individual or group tutoring with program determined by individual needs. Resource help to classroom teachers in adaptation of curriculum and tasks to individual needs.

Level 4: Pupils enrolled in regular class with intensive individual or group tutoring. Program and time determined by individual needs.

Level 5: Special class in regular school with structured contact with pupils enrolled in regular class in both academic and nonacademic situations. (Willenberg 1968, p. 123).

These descriptions provide a useful base against which we can assess the capacity of our school systems to handle the majority of children with special needs, without necessarily having recourse to a segregated special class system. Here we should bear in mind Reynold's two principles of upward and downward movement. They leave us with an important but singularly difficult task: the translation into operational terms of 'feasible' and 'necessary'. The solution to this task lies in the school system itself, and our ability to analyse (and change) its potentialities with respect to children with special needs.

THE AIMS OF EDUCATION:

A basic consideration in any evaluation of education programs is the aims or goals of the program, both in terms of how these have been (or might have been) formulated - the extrinsic aims - and in terms of what actually occurs - the intrinsic aims. Simply as an abbreviated guide to our thinking here, I'd like to propose the following summary statement of categories of aim[iv]. These can be grouped around a general statement, that education is concerned with helping the child to achieve:

(a) adequate all round development;
(b) adequate cognitive learning, and skills for sustaining this;
(c) adequate social adjustment;
(d) an adequate self concept;
(e) adequate preparation for his adult role.

By definition, an exceptional or disabled child is likely to have difficulties in achieving these broad goals within the education system. To put this in another way, there are likely to be significant barriers to his all-round development, his learning, his adjustment and his social acceptance. These barriers to his own development are also the reasons why it is difficult to educate him with other children - or in other words, they are barriers to his integration in the ordinary school system.

Any attempt within this article to describe these barriers to integration in terms of developmental, learning and adjustment processes must necessarily be highly abbreviated and schematic. I have however tried to identify eight key areas in the relationship between the child and the school system where we shall expect to find different kinds of difficulties, and to clarify the significance of these key areas by raising pertinent questions about them. It is important to realize that although eight key areas have been isolated for clarity of exposition, they are very closely related to one another, and in effect form a closely linked network of factors to be considered as a whole. The following section may be seen as the first stage in developing a problem solving model, where the problem may be stated in the form of a question: "how can children regarded as exceptional be helped to achieve the broad aims of education (as these have been defined) within the context of the public school system?" At this stage, I am concerned particularly with trying to ask the right questions. Though sometimes merely asking the right question will suggest the solution, I shall not attempt at this stage to develop hypothetical solutions.

iv For an amplified statement on aims that is consistent with this approach see the CELDIC report (1970).

BARRIERS TO DEVELOPMENT, LEARNING, ADJUSTMENT AND SOCIAL ACCEPTANCE ARISING WITHIN THE CHILD AND THE SCHOOL SYSTEM

1. INTRINSIC LEARNING DIFFICULTIES:

Under this heading is included all those aspects of learning difficulties based upon some deficiency or dysfunction within the child himself. Often there will be related physical or neurological impairments or disorders (e.g. visual; auditory; perceptual-motor), but we must recognize that social-cultural factors may also play an important part in shaping experience, motivation and style of learning. We may want to preserve some sort of distinction between primary (i.e. biological) and secondary (i.e. cultural) factors, but should realize that all learning difficulties represent an interaction between these two sets of factors.

Some relevant questions here are:

(a) How do these difficulties affect the development and learning of behaviours important in the school situation (e.g. communication; language; speech; reading; writing)?

(b) How do they affect the processes of socialization (e.g. the ability to communicate with, play with, work with other children, and the ways in which others will tend to perceive the child)?

(c) Can the impairments be treated medically or surgically, or modified through prostheses (e.g. middle ear surgery; hearing aid)?

(d) Do they require specific types of learning or remediation (e.g. perceptual-motor training), or alternative avenues of compensatory learning (e.g. lipreading; Braille; use of tactile-kinesthetic information) if skills important to academic and social learning are to be acquired?

(e) What are the educational implications of the above needs (e.g. individual or small group teaching; environmental modification; use of reinforcement techniques; special materials and equipment etc.)?

In brief, we are required to translate an impairment into behavioural or functional terms, and to delineate an educational prescription appropriate to these terms.

2. THE SCHOOL CURRICULUM:

Essentially we are interested in analysing a curriculum in terms of tasks to be completed, or skills to be mastered. We need to be able to set this out in larger units of developmental sequences as well as in smaller units capable of the detailed analysis required by No. 1, above.

We also need to examine the appropriateness of the curriculum for the goals and needs of individual children. Traditional, highly academically oriented curricula will obviously present considerable difficulties for children with diffuse, global cognitive impairments. School programs which emphasize reading or writing will penalize children with language and/or perceptual-motor disorders. Along the lines suggested in No. 1 considerable modification in methods and materials may be needed. The questions here are therefore:

(a) Is the curriculum appropriate for the child?

(b) What modifications are needed to make it appropriate?

(c) How can these be introduced within the existing constraints of the school system and the organization of the school program?

3. ORGANIZATION AND ADMINISTRATION OF SCHOOL PROGRAMS:

A wide range of factors could be included under this heading. Some pertinent questions are:

(a) Does the physical lay-out of the school interfere with the child's participation in the program?

(b) Does the size of classes (or other groupings) constitute a significant barrier to progress in the curriculum that is planned?

(c) Can this ratio be changed? (cf. No. 4 below).

(d) To what extent does the organization of the school permit the individualization of pupil programs on a realistic basis (i.e. through specific planning; comprehensive assessment of individual needs; scheduling; allocation of teacher time; provision of equipment and materials; evaluation of progress)?

(e) Is there a range of special education services available as suggested in the Reynolds-Willenberg models? More specifically, are there facilities for short term observation, remediation or treatment, either in special class settings or through other types of arrangement?

(f) Is evaluation 'built into' general and special education programs?

4. AVAILABILITY OF PERSONNEL:

Under this heading are included factors already mentioned or implicit in No. 1-3: the availability of professional and other people to work with the child in the school setting, and their preparation and competence for work with children with special needs.

(a) Has the training of classroom teachers effectively prepared them for identifying, assessing and meeting the needs of exceptional children in the ordinary classroom?

(b) What is being done through in-service programs to update and improve the competence of classroom teachers in these areas?

(c) What resource people are available (and I mean actually available in the flesh, not theoretically available on paper) to the classroom teacher as consultants in the case of individual children with learning and behaviour disorders?

(d) What resource people are available to the classroom teacher for the planning, setting up and evaluation of more sophisticated teaching programs (e.g. those involving programmed instruction or behaviour modification)?

(e) Are the resource people referred to under (c) and (d) capable of providing effective consultation of high quality when it is needed?

(f) In the case of children needing a good deal of individual attention, is there a sufficient number of aides, assistants, or volunteers who can work with the child under the teacher's direction?

(g) Is the training of these ancillary workers adequate for the tasks they are required to perform?

5. ATTITUDES OF TEACHERS AND OTHERS IN THE SCHOOL SITUATION:

I am thinking here not so much of rather specific aspects of training raised in the preceding section (which are certainly relevant to teachers' attitudes), but rather of questions that arise whenever we consider the placement of a particular child with an individual teacher, or in relation to a particular school.

(a) Is the child in a classroom where he will encounter difficulties because of his teacher's unfavourable attitudes towards him and his disability?

(b) Is the social climate of the school as a whole - and particularly the attitudes of the principal and other members of the teaching staff - favourable or unfavourable towards deviant children, or children with particular types of disability or behaviour disorder?

(c) How may these unfavourable attitudes be improved?

(d) What alternative placements for the child are feasible?

Some obvious examples here would be provided by the situation of slow learning children in schools where academic aspirations and achievements are high, or the situation of children from ethnic minority groups where their proportion in the school seems to have reached a critical size so that there are too many to be ignored, but too few to force a significant change upon the school program. One cannot also fail to observe that in some schools disabled or deviant children are simply not welcome, or are tolerated only so long as they remain in special classes. Very occasionally I have encountered these negative attitudes at a school board level also. From a very general point of view the attitudes of a school system towards exceptional children have to be judged by the arrangements made for the children, and the respect accorded to special education programs and special education teachers.

6. ATTITUDES OF OTHER CHILDREN:

To some extent the attitudes of school children towards the exceptional are shaped for better or for worse by the attitudes of teachers and other adults in the school. So that the questions raised in the preceding section have considerable relevance for this section as well. But obviously there are other influences at work, especially the attitudes of parents and family members, but also neighbours and others with whom the child comes into contact. We know as yet rather little about the relative importance of these family and cultural influences upon children's attitudes towards exceptional children, though it would seem reasonable on the basis of studies of cultural and ethnic prejudices to presume that they are highly significant.

Within the school setting itself the behaviour of 'normal' children towards the deviant or handicapped can readily be observed or documented, and play a very large part in determining how the exceptional child will learn to perceive himself. The point that is worth making here is that there are no 'universals' - in some schools handicapped children seem to be well accepted: there is relatively little 'name calling'; teasing or tormenting is rare. In other schools quite the reverse situation obtains. Because of the tremendous importance of this sort of group behaviour to the whole problem of special education within the public school setting, a key question is:

(a) How can children be helped to develop positive attitudes towards the disabled - especially disabled members of the peer group? (cf. some of the questions raised by Levine (1961; pp. 84-5) in an interesting discussion on this topic.)

Further relevant questions are:

(b) Are there any community influences which are especially unfavourable towards particular groupings of exceptional children?

(c) Are attempts being made by the schools, or other agencies in the community, to influence these attitudes in a more favourable direction? (I am thinking here of some rather remarkable changes in attitudes towards the education of mentally retarded children in the public schools which seem to have been the result of deliberate efforts by associations and school boards to educate public opinion).

7. PRACTICES IN RELATED PROFESSIONS AND OTHER SOCIAL POLICIES:

Services for exceptional children are hardly ever restricted to education. Indeed there are many instances where responsibility for providing special education services has shifted from a local school system to a provincial or other resource supported partially or entirely by funds that are independent of education revenues. Virtually every publication in special education, and every special program that is set up inside or outside the school system reflect in some measure the multi-disciplinary (and to a lesser degree the inter-disciplinary) aspect of providing diagnosis and treatment for disabled children.

I don't want to open this particular can of worms at this time: the topic is rather fully discussed in a Canadian context in the recent CELDIC report. But I do want to draw attention to the considerable influence exerted upon educational programs for exceptional children by the other services for these children in the community. And in relation to my particular thesis, that is of examining barriers to integration, one has to remember that most medical and treatment models, and many patterns of service which have grown up around disease entities (e.g. crippled children; cerebral palsy) may run in a quite contrary direction to the idea of 'treating' handicapped children in the same setting as the non-handicapped.

Of particular importance to our present concerns, then, is an examination of the following questions:

(a) To what extent do diagnostic services influence educational recommendations?

(b) To what extent is diagnosis and assessment carried on outside or inside the school system?

(c) To what extent are non-educational (or para-educational) personnel actually involved in school services for handicapped children?

(d) What special education programs are available in the community outside the public school system?

8. FUNDING POLICIES IN SPECIAL EDUCATION:

I have already discussed the central importance of this factor. The critical questions here seem to be:

(a) Is the bulk of special education funding tied to support to special classes?

(b) What funds are available to support the kinds of special program envisaged in No. 1, 2 and 3.

(c) Do we need to explore - perhaps through legislation - a different basis for funding special education services - for example by providing grants in respect of individual children rather than to special classes?

In a later article I hope to look rather more specifically and in greater detail at the implications of these questions, and to discuss some of the ways in which the problems posed by them could be approached or solved. In broadest possible outline, it seems to me that if we are to pursue realistic policies of attempting to integrate a greater proportion of disabled children within our public school programs, we need to pay careful attention to each of the eight areas I have singled out for discussion and particularly to the questions raised by funding policies, the more adequate training of all teachers, the better provision of well trained resource personnel, the more adequate assessment of children in terms of their specific educational needs and the active exploration of attitudes of children towards those who are disabled. I think that it will be clear from what I have said that

I am not advocating the abolition of special classes today (or even tomorrow); that I regard the tasks ahead of us - whichever route we follow - as formidable, even Herculean; and that I am emphasizing caution in the sense that we need to consider each step carefully in the light of the resources we have, and the implications for each child requiring, or being served by, a special education program.

But having said this I should like also to make it clear that I am advocating a revolution in special education!

REFERENCES

Ballance, K. and Kendall, D. (1969): Report on Legislation and Special Services for Exceptional Children in Canada, Toronto: CEC; Canadian Committee.

Barker, R.G. et al (1953): Adjustment to physical handicap and illness. New York: Soc. Sci. Res. Council.

Brabner, G. (1964): Integration and the special class administrator. J. of Educ. 147, pp 105-110.

Dominion Bureau of Statistics (1967): Survey of Statistics of Special Education for Exceptional Children in Canada. Ottawa: Queen's Printers.

Dunn, L.M. (1963): Exceptional Children in the Schools. New York: Holt, Rinehart and Winston.

Dunn, L.M. (1968): Special Education for the Mildly retarded - is much of it justifiable. Exceptional Children 35.1.

Goldstein, H., Mass, J.W., and Jordan, L.J. (1965): The efficacy of special class training on the development of mentally retarded children. Urbana: University of Illinois.

Johnson, G.O. (1962): Special education for mentally handicapped - a paradox. Exceptional Children 19, pp 62-69.

Levine, S. (1961): A proposed conceptual framework for special education. Exceptional Children 28, pp. 83-90.

Lilly, M.S. (1970): A teapot in a tempest. Exceptional Children, 37, pp. 43-49.

Lilly, M.S. (1971): A training based model for special education. Exceptional Children 37.10, pp 745-49.

Reynolds, M.C. (1962): A framework for considering same issues in special education. Exceptional Children. 28 pp 367-370

Whelan, R.J. and Haring, N.G. (1966): Modification and maintenance of behaviour through systematic application of consequences. Exceptional Children 32, pp 281-289.

Willenberg, E.P. (1967): Critical issues in special education: internal organization. Exceptional Children, 33, pp 1-2.

Willenberg, E.P. (1968): Administrative structures for special education (in) The process of special education administration by C. Meisgeier and J. King. Scranton: International Textbook Company, 1970.

Woolf, M.M., and Giles, D.K. and Hall, R.V. (1968): Experiments with token reinforcement in a remedial classroom. Behaviour Research and Therapy 6.51-64.

One Million Children - The CELDIC report (1970). Toronto: Crainford.

Most books of readings provide the reader with many examples of successful strategies. This is all well and good. At the same time, you should be aware that all things do not work for all people. For this writer, who has taught in a school which utilized the open space and team teaching approach with exceptional children, the concept is good and has many advantages to offer. On the other hand, the following article is an example where the disadvantages outweighed the advantages.

SPECIAL EDUCATION - AN EXPERIMENT IN OPEN SPACE AND TEAM TEACHING

Sister Mae Kierans

In September 1969, four special education class teachers and their pupils who could be defined as educable mentally retarded and/or slow learning took possession of a new open area classroom designed for team teaching. The large area, located on the second floor of the new open-space concept St. Joseph School in North Bay, Ontario was the equivalent size of three classrooms, L shaped, carpeted in green, brightly painted with white concrete block walls, purple and yellow folding doors, and large picture windows. Circular, trapezoidal and rectangular blue and pumpkin coloured tables provided pupil work areas.

Of the four team teachers one had special education training and five years experience in Primary and Junior Opportunity[1] classes. The other three teachers had no previous special education training but were hand-picked and considered above average in their work in regular classes. Also they had volunteered for the experiment. Two of these happened to be husband and wife. The special education consultant made a half-time fifth member of the teaching team.

In May and June of 1969 the four teachers and the special education consultant held several pre-service workshops to study special education philosophy and methodology, plan for individual pupil needs and organize curriculum areas.

The forty five moderately retarded children, ages eight to fifteen, had previously been enrolled in self-contained opportunity classes. Eight were new admissions. They were placed into four similar sized groups according to chronological age and assigned to a specific teacher. This was done so that although each youngster would be meeting all teachers each day he could identify more closely with one, and know that this teacher was "his teacher" and especially interested in him. Two groups were considered Junior and assigned to two women teachers, while the other two were considered Intermediate and assigned to the husband and wife team. This terminology was used only among the team teachers. Within the school the entire group was known as Junior "A" and Junior "B".

Additional handicaps among the children included a boy crippled with Spina Bifida who required crutches, two girls with repaired cleft palate who still needed occasional speech therapy sessions in Toronto, a hard-of-hearing boy, and several children who were hyperactive and/or emotionally troubled.

Curriculum areas were assigned to the various team teachers. e.g. there were two language arts blocks of time in the day, one in the morning and one in the afternoon. Children were regrouped according to achievement levels and assigned to their language arts teacher. The male teacher took the boys for physical edu-

---

1. "Opportunity" is the name designed by the Ontario Department of Education for classes for educable mentally retarded children.

cation in the gymnasium twice a week while his wife took the girls. Twice every six days all pupils had access to the industrial arts and home economics facilities in a nearby senior school (grades 7 & 8). The pupils worked in small groups, or as individuals in all the core subjects. In the curriculum areas of physical education, art, music and religious instruction the two junior groups worked together, and the two intermediate groups worked together with at least two, and in some cases three teachers working with each group. The five team teachers met each Tuesday afternoon from two-thirty until four-thirty for further planning and evaluation of the experiment. By the end of December, the fourth month of the experiment, the teachers made the following comments and recommendations based on the experimentation.

Advantages:

-- Teaching and audio-visual materials could be centralized in one school.
-- Greater flexibility was possible in grouping for various curriculum areas, e.g. language arts, mathematics, etc., thereby reducing the range and work preparation by the teacher.
-- Pupils had a wider choice of classmates from whom to choose their friends.
-- Teachers had more opportunities for in-service, sharing of ideas, and mutual support.

Disadvantages:

-- Physical environment was highly stimulating and many pupils were unable to adjust to a) more space, b) colour, c) noise level, d) so many pupils in one area, e) greater freedom and possibility of movement.
-- Physical facilites were not flexible enough to accommodate

children who were a) temporarily upset, b) highly distractible, or c) wanted a quiet place to work.

-- A high concentration of exceptional children was created who could and did more readily communicate their social and behavioral difficulties. This created more supervisory work for the teachers with subsequent lesser time for the development of the academic skills.

-- In addition, this high concentration of exceptional children more readily attracted the notice of other teachers and pupils in the school with not always positive reactions.

-- Most exceptional children require the security of structure.

-- Many children in this experiment were confused in trying to relate to several teachers in a flexible program.

-- Since the range of academic needs could be met by the team teaching method, less emphasis was placed on time-tabling the pupils into regular classes for some subject areas (as had been the case in the previously self-contained classes) because this would have increased an already complex timetable. As a result, the special program children had little contact with the other regular pupils in the school.

-- Group tables caused more distractible behaviour than individual desks.

-- Centralizing four Auxillary classes into one school required the pupils involved to be transported out of their neighbournood with the consequence to the pupil of attracting attention to his handicap, and to the school board of increased transportation costs.

-- Children felt less inclined to socialize outside the classroom since most of them felt social needs could be met within the large grouping in which they were situated.

The participating teachers felt that this was not an ideal way to educate mildly handicapped children, since the advantages were outweighed by the disadvantages, and even the advantages were mostly in favour of the teachers. However, the teachers felt that a contribution had been made to the search for finding better ways of meeting the needs of mildly retarded youngsters about which other special educators would be interested in knowing. This experiment was discontinued at the end of four months. Folding doors were used to convert the open space area into three self contained classrooms. The pupils were regrouped and twelve returned to regular grades and were given special tutoring each day by the fourth teacher. These twelve pupils and their special tutor are the object of a current study of the advantages of daily tutoring for slow learners who are otherwise taught in a regular setting.

Sr. Mae Kierans is Special Education Consultant with the Nipissing District Roman Catholic Separate School Board, North Bay, Ontario.

Many of us, when we read our professional journals, hit the major articles and fail to see the "gems" that are often found in the shorter essays. The following are two of those "gems". Can you be or are you the advocate described in the first article? If not, can you and will you develop them?

OPINION - MINE OWN

Joan Kershaw

ATTITUDES

At times we folk who teach in special education become very angry when we hear thoughtless, stupid, ignorant remarks dribbling from the mouths of fellow staff members concerning the children we teach.

Last week a teacher I know well, who is both excellent in the way she helps children gain academic skills and in her concern for their physical and emotional health and their social adjustment, had a fellow staff member accost her in the corridor outside her classroom and say "I suppose you'll be having the same gang of nuts next year." Her reply was "You'd better ask one of them. He's standing right here beside us."

Some teachers in general education seem to have a particular 'blindness' about children. Such people are poor teachers because they are deficient in understanding and paltry in outlook. The unfortunate child in their classes, who might be different in some way, is usually ignored, given a rough time (however subtly), or unloaded as quickly as possible to special education whose job it is to look after the "dumb or crazy" kids.

Our initial reaction to such individuals is anger. Later we say such remarks are best ignored because they come from ignorance. Unfortunately these attitudes on our part are negative and do little to change the thinking of those who make such comments.

The strongest weapon is better communication between staff members. The onus for this must rest with the special educator. He or she must be a fully-participating staff member and not just someone who inhabits a certain room in the building with his collection of 'nuts'. There must be an ongoing subtle campaign to attempt to make other staff members aware of the severity of the problems some of the youngsters have. The special educator must be ever-ready and able to pass on hints about different techniques and approaches in teaching and in behavioural management that might help a teacher who has a child in difficulty in his class. Continual grumbles about low pupil-teacher ratios and sometimes extra para-professional personnel in special classes can often be dispersed by offering to swap classes for a day, and carrying this through. As the school principal is the one who sets the tone as far as attitudes towards special education are concerned make sure that you get him involved in positive interaction with your children. Not on a one shot basis but as an ongoing interest. This doesn't mean he visits once a week, pats the youngsters on their heads, pouts platitudes and then bolts for the door at the first opportunity, but that he sits down and becomes involved in learning to teach one of them. If your youngsters seem to be the 'fall guys' in the playground don't attack the staff like a ruffled mother hen in full feather but quietly and purposefully get to the root of the trouble and help the other staff members understand about children with 'inefficient braking systems,' or 'angry' children who express their feelings overtly and physically and what you are trying to do to change such behaviour and that you can't do it without help.

At all costs avoid being 'preachy' and avoid getting 'uptight' even if you feel deep down inside you that that particular individual should be booted out of the profession.

CHARACTERISTICS OF A REMEDIAL TEACHER

H.L. Narang

Remedial teachers are not different from the regular classroom teachers. Both have the same objective - to help the child learn and to apply the same basic principles of learning. Remedial teaching, however, is more individualized. Research has not yet established the characteristics of a good remedial teacher. However, experience shows that a teacher with the following characteristics achieves better results:

HE LIKES CHILDREN IN SPITE OF THEIR FAULTS AND ANNOYING HABITS. Children who come for remedial help are generally frustrated. Because of repeated failure they have lost self-confidence and have developed a poor self-concept. They need warmth and understanding. A good remedial teacher accepts them as they are and is always ready to listen to their ideas and feelings. He has an enormous amount of patience and is full of praise and sympathy.

HE BASES HIS REMEDIATION ON THE DIAGNOSIS OF A CHILD'S PROBLEMS. He determines the child's strengths and weaknesses, his likes and dislikes, his interests and needs and builds the program on this information. He gets this information through formal and informal techniques. Formal techniques would include the use of standardized tests and informal procedures refer to observation, interviews, inventories, checklists and anecdotal records. All these sources provide valuable data for diagnosis.

HE STARTS HIS INSTRUCTIONAL PROGRAM AT THE PRESENT LEVEL OF THE CHILD. This provides the learner with a feeling of success and accomplishment and thereby restores his confidence. He is careful in establishing the level at which the child can experience success and joy in reading. Informal inventories or graded selections may provide a better indication of where to start than do the standardized tests.

HE TAKES SMALL STEPS AND REINFORCES SUCCESS. The teacher breaks down the learning task into small steps wherever possible so that the child can see that the goal is realistic. He praises the child's efforts and notes his improvement. Most children feel secure and confident when they see concrete evidence of their progress. Teachers use various kinds of charts and graphs to record pupils' progress. They also might give candy, money, stars, or grades as reinforcement.

HE IS FAMILIAR WITH VARIOUS REMEDIAL TECHNIQUES AND USES DIFFERENT APPROACHES WITH DIFFERENT CHILDREN, COMMENSURATE WITH THEIR INTERESTS, ABILITIES, AND NEEDS. He has available a variety of materials - books, workbooks, games, and kits. To teach the required skills. There is a wealth of materials available and a good teacher examines them for their general and specific purposes before using them. Sometimes he prepares his own materials.

HE KNOWS THAT DIAGNOSIS AND REMEDIATION ARE COMPLEX TASKS AND OFTEN REQUIRE THE COMBINED EFFORTS OF A TEAM OF EXPERTS FROM DIFFERENT DISCIPLINES. He, therefore, tries to get cooperation from the optometrist, the psychologist, the neurologist, the audiologist, the pediatrician, the psychiatrist, and the social worker. He also works with the parents and the classroom teachers.

In short, a remedial teacher accepts children as they are, and tries to understand them. He plans his program on the basis of careful and continuous diagnosis. He keeps children motivated by means of judicious selection of materials and evidence of regular progress. In severe disability cases he seeks cooperation from parents, teachers, and other specialists outside of education.

Dr. H.L. Narang is an assistant professor on the Regina Campus of the University of Saskatchewan.

The majority of the local, provincial, and state education associations throughout Canada and the United States have sub-associations of some kind for the special educator. The services provided are great, varied, and needed. There is another professional association for special educators. This association, unlike the previous one, is an international association. The association is known as The Council for Exceptional Children. The following excerpt is taken from an article by F.A. Mackinnon, a past Chairman of the Canadian Committee of the Council for Exceptional Children.

A MESSAGE TO: CANADIAN MEMBERS
THE COUNCIL FOR EXCEPTIONAL CHILDREN

FROM: F.A. MACKINNON
CHAIRMAN, THE CANADIAN COMMITTEE
THE COUNCIL FOR EXCEPTIONAL CHILDREN

The purpose of this rather lengthy message is threefold. It seeks first, to describe to you the background of the Canadian Committee, second to point out its present situation, and third, to request you to register your opinion for its guidance in the immediate future.

With the CEC's structure of chapters, branches, federations, divisions, and committees the Canadian Committee is a standing committee charged with particular responsibility for CEC in Canada. Its chairman, elected from within the Committee, normally becomes a member of CEC's Executive Committee where he is designated "governor-at-large for Canada". The Canadian Committee draws its membership from each of the ten provinces. Members are elected by CEC units in the provinces where such exist; where none exist, they are appointed by the Chairman in consultation. Members serve on the Committee for three-year terms.

The basic function and concern of the Canadian Committee is identical to that of each CEC chapter and federation - to develop and extend equitable educational opportunity for exceptional children. The difference between the Committee and chapters or federation is that its territory is not a locality or a province, but all of Canada.

In pursuit of this objective the Committee has seen its larger goal being achieved by the gaining of a series of intermediate positions. First of all, it had to become representative of those who work with exceptional children across the country as a whole. When the Canadian Committee began in 1958 under its appointed chairman, T.W.H. Martin of Toronto, only the province of Ontario could boast of federation. Manitoba's Winnipeg was of a size that it could be designated a provincial branch, but most of the remaining provinces did not possess a single chapter. Thus the Committee's first task had to be the development of a CEC organization in each province through which and by means of which further advances could be made.

Today, thanks to the efforts of subsequent Committee chairmen, Nadine Chidley (Winnipeg), and Ronald Jones (Toronto), and thanks to the commitment and energy of Canadian members of CEC in general, there are now CEC organizations in all but three provinces. In at least two of these a chapter will undoubtedly be founded in 1970.

Every province has two representatives on the Canadian Committee and, where provincial membership exceeds 100 and thereby qualifies it for representation on CEC's Board of Governors, its governor becomes a third Committee member. The list inside the front page of Special Education in Canada will show you the current membership of the Canadian Committee. Today we have almost achieved our first intermediate goal. We are well on the way toward a CEC unit in every province and the Canadian Committee does indeed represent every province.

Meeting in Winnipeg in 1962 under Nadine Chidley's chairmanship the Committee established a second intermediate objective. This was to determine and make known the nature and extent of legislative provision for the education of exceptional children in each Canadian province. Wide differences were known to exist. Before the Committee could decide where and in what direction to press, it had to learn as precisely as possible the nature of provisions currently in effect.

You will recognize that while this objective can be simply stated, its achievement involved a great deal of hard work, judgment, and no little expertise. It was two years before an effective committee on legislation could be mounted. Finally and capably written under the chairmanship of Doctor David Kendall of the University of British Columbia, this committee's report was four years in the making. W.J. Gage right now are printing it for us at no cost to the Committee. Needless to say we are grateful for this very real evidence of their interest in exceptional children. You should have access to a copy early in 1970.

For the past several years Canadian members of CEC and particularly those on the Canadian Committee have been concerned to advance the cause faster than had been done through volunteer, part-time work, devoted though such might be. In other words, it was seen important that the work of the Canadian Committee be assisted by the employment of a full-time general secretary. Obviously this could not be done within the Committee's ordinary financial resources. In 1968 at the St. Louis convention Ronald Jones presented the need to CEC's Executive and Board of Governors. The Board of Governors voted the Canadian Committee the sum of $6,000 (upwards of $3 per Canadian member) for the project on a one-year trial basis. In 1969 the Board again underwrote the secretaryship for the same amount.

As most of you know the Canadian Committee appointed Dr. W. John McIntosh, a long-time and active member of CEC, to the post. We have been fortunate in being able to take advantage not only of his experience but also of the coincidence of his retirement from an inspectorate in the North York school system. Dr. McIntosh has travelled from Victoria to St. John's in the course of his duties. His knowledge and enthusiasm are available to both organized CEC units as well as to professionals who would like to develop CEC units, or to learn more about CEC resources and services. His address also appears at the beginning of this magazine.

Among its other findings the Kendall Committee revealed severe deficiencies as well as a wide disparity, province by province, in the standards of education and experience expected of those professionally engaged in the education of exceptional children. In the United States a professional standards committee had sat, worked, and produced a report and set of recommendations. It was the Canadian Committee's opinion that while that group's findings are valuable to us here, our own situation is sufficiently different to warrant a Canadian study.

Again we have been fortunate in a person to head the study, Doctor Madeline Hardy. She is a member of the faculty of Althouse College of Education, University of Western Ontario, and a past-president of the Ontario Federation, CEC. We are fortunate, too, in those who have been willing to give their time and thought to a Canadian professional standards project. Their interest testifies to the concern of CEC members generally to develop the best possible resources in people as well as materials for children who are different. While this is being written, Dr. Hardy's committee is holding its first meeting.

Another and continuing objective the Canadian Committee has had from the outset is to provide the means of expressing the interests, needs, and concerns of special educators not within a province, as do federations, branches, and chapters, but across Canada as a whole. A publication that would circulate among Canadian members was seen to be the answer.

Prior to the formation of the Canadian Committee the special educators of Ontario had published a magazine Special Education. Ron Jones has described to the Canadian Committee how when the Committee was formed Dr. Martin saw Special Education as the vehicle whereby communication among all Canadian special educators might be achieved. The magazine was ailing financially at that time and he also saw an infusion of Canadian Committee dollars as the means of saving its life. Thus it is that every Canadian member of CEC, subject to the vagaries of membership rosters, receives a copy of Special Education in Canada.

In the foregoing I have tried to describe the objectives of the Canadian Committee in terms of both ongoing objectives and immediate or short-term objectives. These are to be seen against the backdrop of the total objective - advancing educational opportunity for exceptional children here in Canada. Our ongoing objectives are to expand CEC membership in Canada and to bind it together so that on the national scene it may speak with a unified voice. Intermediate objectives are more specific. We have been concerned to learn and to publish the nature of legislative provision for the education of exceptional children in Canada. And we are concerned to develop and make available to governments, institutions, and agencies in Canada and elsewhere a set of standards for the professional preparation of persons in special education. Other immediate objectives will be established as our organization as well as our understandings develop.

The preceding readings were selected so as to provide you with a general overview of special education. It is hoped that as your interest in special education develops so will your desire for information of the field. It is recommended that you consult the multivarious professional journals and books which are concerned with the education of exceptional children.

With the exception of the concluding chapter, the following chapters will be concerned with readings in specific areas of exceptionality. These areas are the cultural differences, learning disabilities, speech and hearing impaired, gifted, mental retardation, visually impaired, physically impaired and emotional disturbance.

CHAPTER II

THE CULTURALLY DIFFERENT CHILD

by:

Leslie D. Karagianis

The term culturally different child is a relatively new term in Canadian Educational Circles. Sometimes we refer to the child as socially disadvantaged or culturally disadvantaged. This does not mean that the child does not socialize or that culture is lacking in his life. The term culturally different is a relative term and it means that such a child, when compared to the average child, is lacking in many things that would allow him to live a normal life in today's increasingly industrialized society.

Culturally different children usually are children who have not progressed academically at the same rate as other children. In the past there has been a tendency to say the slow rate of progress is due to low intelligence as measured by a score they receive on a group IQ test. However, what is often overlooked is that the child's reading ability is very low and, because there is a direct relationship between reading ability and scores on a group IQ test, the child gets a low score. Research has indicated that a great number of children suffer from a family environment which hinders their intellectual development in the years before they enter school. Thus, when these children finally reach school, their restricted use of language proves to be a great handicap to the child. Couple this with poor family attitude, limited motivation, poor facilities and it is easy to see the sometimes formidable problems *the teachers face in trying to bring the child us to the acceptable educational level.*

We usually associate culturally different children with the poor urban centers in the United States and Canada. The majority of culturally different children are from poor families in the big cities. However, it is possible for rural areas to have many conditions which lead to a group of disadvantaged people. The purpose of this section of the book is to make you familiar with the general ideas of the culturally different and to compare these ideas with children in your own local area. After you are aware of such things as techniques for identification, problems, goals, etc., it will be possible to provide remedial programs to help these children if they exist in your area.

Please remember that the child may come from a culture that is full and rich in tradition. However, because the culture may be out of step with our modern technical society, children who come from this culture are at a disadvantage.

The article by Wilfred Martin was written from research conducted in Newfoundland. It is therefore pertinent to our study of the culturally different child in this course.

PRIVATION OR DEPRIVATION
A DISCUSSION ON THE "CULTURALLY DEPRIVED" CHILD

Cynthia A. Kallan

"Culturally deprived" children are not deprived of stimulation. Rather they are deprived of distinctive stimulation. Sensory stimulation, sheer amounts of light or sound, for instance, is not to be equated with symbolic or intellectual stimulation. Actually, to be deprived of something, an individual must first have experienced the stimuli, then suffer it's loss. In the case of the "culturally deprived, " I would venture to say, is suffering from privation rather than deprivation.

Who is the disadvantaged child? We used to call him "the slum child," "the poor whites," "the migrant." He may be white or Negro, he may be a mixture of many ethnic cultures. His place in our society is delinieated by his socio-economic environment. If poverty is considered he has been classed as "disadvantaged." Poverty is defined as characterizing a family with an annual income of less than $3,000 per year.

Riessman describes the "culturally deprived" child as follows: a) He is physical and visual, rather than aural; b) He is content-centered, rather than form-centered; c) He is externally oriented, rather than introspective; d) He is problem centered, rather than abstract centered; e) He is inductive, rather than deductive; f) He is spatial, rather than temporal.

One out of every three children in our school system is classed as "culturally deprived," "disadvantaged, or as a "retarded reader;" a retarded reader is generally regarded as one who is reading a year or more below grade placement. The "culturally deprived" child is not culturally deprived. Rather, he has been reared in a culture and society that is different from his middle-class counterpart. He has a life style of his own. He is non-verbally oriented and motoric. He lives to survive for today and is quick to take advantage of an opportunity that will afford him pleasure. He is creative, in that he can figure out a way to "...Circumvent the law when the law is irrelevant to his life," or how to play basketball without the trappings of a gymnasium. He operates spatially, through the physical world, but often does not tune in on temporal orientations, the abstract world.

The child of poverty, of whom we are speaking, suffers from a distinct kind of stimuli privation. He lacks differentiation of visual stimuli in his world. His figure-ground perceptions are inadequate; eye-hand controlled movements are noticeably inadequate. He keeps himself occupied, and out of trouble by watching TV or listening to a blasting radio. He does not learn to relate to his environment through touching and manipulating his surroundings. Language, per se, is clouded through limited verbal communications with others. Sound is everywhere but auditory discrimination is inadequate. He has no play room, no picture books, few people who would talk to him, no one to read to him, no blocks or games that would normally stimulate his middle-class counterpart. How can he have prepared himself for school? He does not recognize forms, shapes, sizes, contours, textures, etc. He is not deprived; in his case, again, this is a privation of selective stimuli.

Like any young child, he thrives on a just but firm atmosphere. He is very literal and responds to a structured, functional set of guide lines. It is quite clear that the present educational system has not been able to reach these children, for it is structured to approach the middle-class child, with middle-class teachers who come from middle-class education programs. Society has provided neither educational leadership training necessary for new supplementary technologies to filter through to the teacher training programs.

A major problem is that the education system tends to ignore some well-established knowledge about human development that could be applied for the benefit of these children. Cognitive psychologists of today have taken the work of Piaget a step further than originally outlined. Piaget painstakingly observed and recorded children's cognitive development in much the same manner as Gesell set norms for the average child's development and growth. Erickson and Freud have outlined for us the stages of psychosocial and psychosexual progression of personality development. The works of these men have given us standards to be used as guideposts in understanding the physical, cognitive and social growth of the child.

Most feel that an individual's achievement in life depends very largely on what he has been helped to learn before the age of four. The passage of time and "waiting until he matures" may cause irreparable damage. Studies of the disadvantaged child, the child with a developmental lag in his perceptual-motor functioning, and the child whose personality development has been fixated in a stage of his maturation processes, have shown that active intervention through learning therapy and psychotherapy have been successfully utilized to rehabilitate these youngsters. Time, used inappropriately in rehabilitating and intellectually stimulating the children of the slums, increases the cumulative deficit ratio.

Until about 18 months of age, the children of poverty and middle-class families perform along parallel lines. In some respects, such as motor performance, the poorer class infants seem slightly ahead. At about 18 months, when babies begin to talk, they move from the physical to the cultural environment. It is here that the curves of development take widely divergent forms. Middle-class toddlers begin by investigating their world of toys, speech and games under the guidance of interested adults. But the children of poverty in their crowded, disorganized, noisy homes, learn that the best way to stay out of trouble is to keep quiet. By kindergarten age the I.Q. scores of these child-run 5 to 15 points below their middle-class peers.

Pieget tells us that language become internalized as an instrument of thought. A child uses language even when he does not speak. Piaget calls it inner speech; speech for oneself, as opposed to speech for others. Pre-schoolers speak out loud, an intermediate stage during which their voiced egocentric speech fulfills the functions of inner speech.

A child who learns a restricted linguistic code from his lower working class parents also learns that nothing really important is ever transmitted by language. In his family, the strongest messages take non-verbal forms; gestures, intonations, actions, spankings - where are the family lectures on values, attitudes, motivation, ethics and morals to which the middle-class child is exposed? A mother's teaching style is a better predictor of a child's school achievement than is his I.Q. Since the child's central task is to deal with the environment and learn to focus on ideas, "deprivation" seems to be a deprivation of meaning in early cognitive relationships between mother and child.

Headstart does not appear to have produced any lasting change in children's understanding, their language skills, or their ability to learn. By the age of five or six, slum children trail so far behind their middle-class counterparts, that from an educational point of view, they are already remedial cases. Improving their behavior is not enough; socialization is not enough. Enrichment such as field trips or clay modeling is not enough. In eight weeks can a child from the slums catch up to his more fortunate classmates? What they need is intensive, systematic training to bring them closer to the verbal and abstract level required for success in school.

Carl Bereiter and Sigfried Engelman, working in the slums of Urbana, Illinois, devised a system of conceptual awakening in the disadvantaged child of pre-school age. Some call it the pressure cooker approach. This is a misnomer, for with an understanding of how the slum child approaches life, it is the logical way to stimulate him; noise, participation and with an urgency about learning. Language loud and intense, is an instrument of learning and thinking. This was rescue operation. However, it was successful and can be justifiably applied to the middle-class pre-school program, albeit, without the reinforcement of the physical, noisy atmosphere. One can stimulate conceptualization in the pre-schooler!

Deutsch emphasizes the urgency of early childhood education, for intervention later may be wasteful. The essential element is simply that for the child who is inadequately equipped to handle what school has to offer, it is up to the system to develop compensatory strategies through a program of stimulation appropriate to his capabilities. Deutsch strongly recommends a flexible, ungraded grouping of children in the elementary school that will permit individuals to complete, for example, a given three year block of work in four years or perhaps in two years. This will reduce discouragement on the part of the slower children and make it possible for the more able to accelerate and/or enrich their learning.

If we were to match the needed skills with the developmental stages of a child's growth as McV. Hunt suggests, the child should be enrolled in a formalized school situation beginning at age four. He would then find himself in a systematically enriched environment encompassing his pre-operational and preconceptual stages. De Hirsch proposes an interim class for the children with a developmental lag in their perceptual skills. Deutsch would like to carry this concept further with ungraded classes up to and including the second grade. Riessman, too, recommends that there be a transition period in the school where the deprived child is awakened, through his visual and kinesthetic senses. He will then be able to progress to the conceptual level where verbalization can occur without immediate sensory cues.

Volume upon volume has been written each proferring similar recommendations. Question: what concrete steps has the System taken to heed the advices, suggestions and recommendations offered by men of knowledge and experience?

REFERENCES

Englemann & Englemann, Give Your Child A Superior Mind, Harper & Row, NYC

deHirsch, Katrina, et al.: Predicting Reading Failure, Harper & Row, New York, 1966

Deutsch, Martin and Associates, The Disadvantaged Child, Basic Books, New York, 1967

Piaget, Jean: The Language and Thought of the Child, Meridian Books, New York, translated by Marjorie Gabain, 1967

Pines, Maya: Revolution in Learning, Harper & Row, New York, 1967

Riessman, Frank: The Culturally Deprived Child, Harper & Row, New York, 1962

TEACHERS OF THE CULTURALLY DISADVANTAGED

by:

Arnold B. Cheyney

Abstract: The personal qualities emphasized as desirable in teachers of the disadvantaged begin with respect for the pupil and include patience, understanding, sensitivity, good judgment, and a sense of humor. Teachers of the disadvantaged usually have middle class backgrounds, values, and attitudes which are in conflict with those learned by the children living in the slum areas. There is a need to develop training programs for teachers of the disadvantaged at university and public school inservice levels.

Teachers of the culturally disadvantaged probably experience more frustration in one day in attempting to get children to learn than most teachers experience in a month. Even though attitudes toward teaching in disadvantaged area schools appear to be changing slightly, the remark an outstanding teacher made to me is still considered axiomatic: "Right now the common thought is that you must be dumb or flunked basket weaving in college to get in schools like these" (Cheyney, 1964, p. 127).

PERSONAL QUALITIES

What, then, are the personal qualities necessary for teachers of culturally disadvantaged pupils? Frank Riessman (1962) says that, even though the progressive approach to education emphasizes learning by doing, it is the "old style, strict, highly structured teacher who appears to be the most popular and effective with underprivileged children" (p.72). While Sexton (1961) might well agree with the view of Riessman, she sees a different type of teacher as most adequate to develop the potentialities of these children. She further charges that the schools,for the most part, refuse to hire dedicated reformers - those with zeal, compassion, and occasional eccentricities, precisely because they are dedicated, zealous, and eccentric.

Reformers passionately believe that the changes they want to bring about would be efficacious, that the people for whose benefit they work are worth the trouble. And those reformers who teach the culturally disadvantaged believe these children are worthy of respect. The Educational Policies Commission (1962) recognizes the importance of the teacher's attitude towards his pupils. "The heart of the educational process is found in the skill, dedication, and personality of the teacher. Foremost among the needed qualities of the teacher is respect for the pupil." (p. 19)

In middle class schools, teachers have a high status almost automatically. Many beginning teachers in underprivileged area classrooms have found they must work for this respect. Gage (1963) states that the teacher must also "win her spurs anew with every class" (p. 18) and especially with the leaders among the pupils.

Along with such attributes as liveliness, zeal, dedication, and respect, sensitivity in helping the child to learn is necessary. Rousseve (1963) puts it this way: "A culturally disadvantaged youth gains no benefit from constant admonition unless the urging is accomplished by sensitive help in learning" (p. 118). Riessman (1962) describes this sensitivity as an "identification with the underdog. A teacher who possesses this feeling is more likely to understand the problems and feelings of the underprivileged youngster" (p. 72).

Crosby (1963) agrees and relates this insight to the student's need for respect, both for self and for others: The teacher who looks with penetrating insight into the potential of disadvantaged children and creates a school which identifies with them provides a climate of support, makes possible the development of a self-image which commands self-respect and respect for others" (p. 412).

As one continues the search for the personal qualities that should mark the teacher of the culturally disadvantaged, it becomes increasingly apparent that no one teacher could epitomize the whole range of attributes. For instance, MacKie, Kvaraceus, and Williams (1957) emphasize that the teachers

> ....should be people of good judgement, possess a sense of humor, have the ability to place people and events in proper perspective, have adaptability and flexibility of mind, be conscious of their own limitations and idiosyncrasies, and have a normal range of human contacts outside the daily task of working with problem children (p. 13).

High (1963) writes that "the teacher must be one who has the patience to understand" (p. 22). For the modern American teacher, this patience requires constancy through many vicissitudes. It is different from that which Margaret Mead (1961) attributes to the elderly guru of India. Over the years, the guru grew mellow, wise, and patient with the young in a slowly changing society. The pupils remained basically the same year after year. The Indian teacher needed only to keep alive a spontaneity and capacity for observation that would add to his wisdom, understanding, and gentleness. But the situation is completely different for the guru's American counterpart. "What seemed to be true as she observed the fifth grade five years ago is no longer true; the children's behavior becomes not more predictable - as it should as she grows more experienced - but less predictable" (p. 431).

TEACHER BACKGROUND

The disparity is great between the qualities needed in teachers of the disadvantaged and those which actually exist. The main source of this difference is the variation in cultural backgrounds of the primarily middle class teachers and the lower class children. Because of this, "the expectations of the teachers and the curriculum they teach have a strong cultural bias favorable to the middle class" (Brookover, 1955, p. 96) Moreover, the recruiting of teachers who have labor background does not seem to affect the overall attitudes of teachers in general.

Bell (1962) indicates that today many teachers are being recruited from the lower middle and upper lower classes, especially male teachers. Wattenberg, Menge, Faunce, Sullivan, Ellsworth, Peters, Rasey, and McDaid (1957a), in their chapter on "Social Origins of Teachers - A Northern Industrial City, " found a large block of teachers with labor background coming into high schools. McGuire and White (1957) conclude in their "Social Origins of Teachers - in Texas" that teaching offers upward mobility for such teachers and, for most of them, life as middle class citizens:

> Teaching as a profession appears to provide opportunity for mobility for at least 40 per cent of those who enter the field. Only one in five comes from upper-lower-class

> backgrounds. Some of lower status origin apparently achieve an upper-middle-class way of life; others, although upward-mobile, attain only a lower-middle status in their communities..... About three of every four of the persons in education seem to follow an upper-middle class pattern of living and more than a third come from such family backgrounds (pp. 36-37).

The fact that a teacher may come from much the same class as the children he teaches does not imply that he readily identifies with them or understands them. Wattenberg et al (1957b), in discussing the attitudes of teachers toward lower class children, emphasize that "no matter what their initial social status, almost all teachers give allegiance to the basic middle-class values in the areas of personal ambition and morality" (p. 69).

Warner, Havinghurst, and Loeb (1964) found teachers concentrating their efforts on structuring this type of role for selected lower class children. "They train or seek to train children in middle-class manners and skills. And they select those children from the middle and lower classes who appear to be the best candidates for promotion in the social hierarchy" (p. 310). No special provision was made for those children for whom extended formal education seemed inappropriate because of their lack of interest or ability.

All this tends to indicate that even though teachers are coming more and more from lower income groups, their behavior toward the lower class child is not determined by their class origins, but by their class orientation (Sexton, 1961, p. 230).

Symonds (1941) made a study of the biographies of fifty women teachers which indicates that the need for achievement, inherent in the teacher herself, gives rise to personality problems and clashes in the classroom. This need to achieve on the part of middle class oriented teachers is often frustrated when teachers attempt to put achievement into operational effect in the deprived school classrooms.

Allison Davis (1954) suggests that the crucial dilemma of our middle class teachers and school stystems is "the ineffectiveness of middle-class sanctions upon the great masses of lower-class children...." (p. 575). The middle class orientation toward the teaching profession goes on, perpetuated by the parents of upper class students. As Anderson (1954) found "parents of the upper two classes rated the teaching profession more suitable for their sons and daughters than did parents of the lower two classes" (p. 352).

TEACHER ATTITUDES

There are generally three choices open to teachers when they find themselves offered or placed in the position of teacher of disadvantaged children: (a) they can refuse the positions and teach in the suburbs or elsewhere; (b) they can accept the positions and adjust to the problems surrounding them; or (c) they can apply for transfers to "better" schools as soon as the system's regulations permit.

Becker (1952) made an interesting study of the third alternative. According to him, the slum school is the place where most beginning teachers start their move upward in the Chicago school system's hierarchy of choice school positions. The teacher's stay in the school considered undesirable begins to end when he is able to put his name on the transfer list. Sometimes a teacher may put his name on ten different lists of schools for better neighborhoods and better schools.

The second alternative of settling in a school and making "a permanent adjustment to the slum school situation" (Becker, 1952, p. 473) is chosen by many teachers. They also learn to revise their expectations for these children. The adjustment often comes in the form of accepting smaller accomplishments on the part of the pupils. A principal of an elementary school describes this change on the part of her teachers: "Our teachers are pretty well satisfied if the children can read and do simple number work when they leave here ....They're just trying to get these basic things over" (Becker, 1952, p. 474).

A study (Groff, 1963) on the dissatisfactions in teaching the culturally disadvantaged child was made in 16 schools serving Negro or Mexican-American ghettos in a large city. The responses of 294 teachers were tabulated in answer to this open ended sentence: "The main reason, in my opinion, for the high turnover among teachers of CD children is......." The results:

> Forty per cent of the responses pointed to "peculiarities" in the personalities of culturally deprived children as the major cause of the dissatisfaction that leads to turnover. Thirty-seven per cent highlighted deficiencies in the administration or organization of the teachers themselves. Problems of discipline or negative behavior, classes that were too large, and lack of understanding and acceptance of deprived children by teachers headed the list of specifics (p. 76).

In a study made in Cleveland, Ohio, Wickman (1938) found that teachers in an elementary school were more concerned with outward behavior than with the inner personal conflicts of children. This, of course, is not hard to understand when it is considered that teachers are middle class oriented and have a personal need to achieve, which is frustrated when they attempt to transfer their attitudes to deprived children.

Cohen (1955) found teachers exhibiting the same attitudes toward the disadvantaged that Wickman did: "The most serious problems from the standpoint of the teacher are those children who are restless and unruly, who fidget and squirm, who annoy and distract, who create discipline problems. The good children are the studious, the obedient, the docile...." (p.115). Cohen concludes by stating that, in terms of conduct and academic achievement, "the failures are drawn disproportionately from the lower social class levels" (p. 115).

Clark (1963), in the findings of a preliminary study on teacher attitudes toward the disadvantaged, reports that, although there were some outstanding exceptions, "the overwhelming majority of these teachers and their supervisors rejected these children and looked upon them as inherently inferior" (p. 148).

The danger posed by such a widespread belief that the culturally disadvantaged child is naturally incapable is described by Asbell (1963):

> Recently a psychologist at the University of North Dakota, Dr. Robert Rosenthal, showed vividly how an expectation becomes a reality. He selected two groups of psychology students and put each in charge of teaching a group of rats to run through a maze. Dr. Rosenthal then told one group its rats were "maze-bright," the other that its rats were "maze-dull." Both these statements were unfounded, but Dr. Rosenthal wanted to give each group of students

> something to "expect." Sure enough, the students who thought they had "maze-bright" rats got significantly better results than those who had been misled into thinking their rats were dull (p. 116).

A study by Davidson and Lang (1960) on the relation of children's perception of their teachers' feelings toward them bears out the adverse effects of low expectations. One major finding of this study was that "the more positive the children's perception of their teachers feelings, the better was their academic achievement and the more desirable their classroom behavior as rated by the teachers" (p. 116).

Thus it appears the myth that the teacher should have low expectations for disadvantaged children may be misleading. The greater danger is that the teacher, in believing it, may contribute to the very condition he deplores.

Sims (1951) found in a classification of teacher attitudes a very conservative bias among teachers. While urban labor was judged to be 29 percent conservative and 38 percent radical, teachers in his study were 71 percent conservative and 4 percent radical. In summarizing his data, Sims states that "the majority of the teachers showed little sympathy with labor and laboring people, generally considered themselves a "cut above" skilled workers and, to a lesser extent, above the other "white-collar" workers (p.338)

Since teaching is the major profession readily accessible to Negroes (Mydral, 1963) some attention to their attitudes toward children and teaching is appropriate. Vontress (1963) says that many Negro teachers, especially in major northern cities, become tired, discouraged and disgruntled at being put into the ghetto schools.

> To them school is not an enthusiastic learning center where everybody is academically alert, where people desire to learn something now because it is worth knowing. Instead, it is a place where a major part of the teacher's time must be devoted to maintaining discipline among children who never before have known it. Thus it is often felt that years of excellent preparation go for naught. (p. 79).

TRAINING

Since it is difficult to change the social orientation of teachers or to select only those prospective instructors who seem naturally to have an affinity with the deprived, the necessity for proper training for future positions in disadvantaged school areas is evident. A word of caution is in order, though. Eleanor and Leo Wolf (1962) state that "one cannot help noting that the practice of focusing attention on the shortcomings of teachers and on educational materials and techniques serves to distract attention from more basic (and less easily attacked) problems" (p. 385). The less easily attacked problems in this case are adequate finances.

In this same vein, it is interesting to note that in Conant's (1961) recommendations for under-privileged schools he lists finances first and then training. "More teachers and perhaps more pay for teachers are necessary for schools in the slums than in either the high income districts of the large cities or the wealthy suburbs. Special training programs for teachers in slum schools are needed" (p. 146).

The Educational Research Service (1963) of the National Education Association, after a thorough survey of many public school programs for the disadvantaged, came to the conclusion that "perhaps the most obvious need in working successfully with underprivileged children is a group of teachers specially trained and oriented - perhaps dedicated to the job they must do" (p. 3).

The teacher training institutions, by and large, have done little or nothing to train teachers specifically for the slum schools. Here and there over the country, certain institutions are beginning to consider the problem. Training teachers for effective service with the disadvantaged has remained primarily an inservice activity. This has been one of the major emphases of the Great Cities School Improvement Program, which the Ford Foundation has heavily endowed.

Druding (1964) superintendent of district V, Philadelphia public schools, Pennsylvania, says, "Our experience of the past 2 years leads us to believe that teachers, both master and inexperienced, can be helped on the job to work more successfully with children of limited background." She then states quite vigorously that "the teacher training institutions should come to grips with this aspect of teaching......" (p. 194).

The experience in the Detroit public schools leads one to believe that inservice training is perhaps the best way to change behavior on the part of a staff which is already involved in teaching the culturally disadvantaged. Marburger (1963) emphasizes that "the key to modification of behavior (on the part of teachers) seems to be involvement" (p. 304). This opinion developed as a result of some disappointing workshop experiences with consultants from the varied disciplines of psychology, sociology, education, and social work. "Our experience leads us to believe that very few significant changes in the behavior of teachers takes place as a result of listening to experts" (p.304). The teachers either tuned in or tuned out the experts. What appeared to work best were workshops and inservice experiences structured around local school curriculum problems.

SUMMARY

A number of personal qualities are emphasized as desirable in teachers of the disadvantaged. If any one quality stands out as necessary, it might be described as respect for the pupil. Some authorities believe the old style, strict, highly structured teacher has the most to offer these children, whereas others look for reformers, teachers with patience, understanding, sensitivity, good judgment, and a sense of humor.

The teachers of the disadvantaged usually have middle class backgrounds or values which conflict with those learned by the children living in the slum areas. Even when a teacher has a lower class background, there is no evidence he will relate positively to disadvantaged children. Teachers sometimes select the best candidates in their classes for promotion in the social hierarchy and even use the teaching profession themselves as a means to a higher social status.

Attitudes brought about by experiences before and during the teaching experience affect the way teachers feel and act toward disadvantaged children. Finding difficulty in instructing these youngsters, teachers often attempt to avoid teaching in the slum schools. The children, in turn, reflect the attitudes of their instructors. Negro teachers, many of whom are in teaching because it is the profession most readily open to them, often find difficulty accepting children in disadvantaged areas.

The current emphasis on the shortcomings of teachers and their lack of training (perhaps a screen for failing to provide adequate financing) does indicate the need for more specialized instruction in methods of dealing with disadvantaged children. Although the teacher education institutions have been slow to develop programs for teachers of the disadvantaged, the public schools have had some experience with inservice training. If teachers are involved in the local school and community problems, inservice training shows some degree of promise.

REFERENCES

Anderson, W. F., Jr. Attitude of parents of differing socioeconomic status toward the teaching profession. Journal of Educational Psychology, 1954, 14, 345-352.

Asbell, B. Not like other children. Redbook, October, 1963, 71, 64-65f.

Becker, H. S. The career of the Chicago public school teacher. American Journal of Sociology, 1952, 57, 470-477

Bell, R. R. (Editor) The sociology of education: a sourcebook. Homewood, Illinois: Dorsey Press, 1962.

Brookover, W. B. A sociology of education. New York: American Book Company, 1955

Cheyney, A. B. A descriptive study of the methodology of outstanding teachers of culturally disadvantaged elementary school children. Unpublished doctoral dissertation, The Ohio State University, 1964.

Clark, K. B. Educational stimulation of racially disadvantaged children. In A. H. Passow (Editor), Education in depressed areas. New York Teachers College, 1961 Pp. 142-162

Cohen, A. K. Delinquent boys; The Culture of the Gang. Glencoe. Illinois: The Free Press. 1955.

Conant, J. B. Slums and Suburbs. New York: McGraw-Hill, 1961.

Crosby, Muriel. Children in Crowded Areas. Childhood Education, 1963, 39, 411-412.

Davidson, H. H. and Lang. G. Children's perceptions of their teachers' feelings toward them related to self-perception, school achievement and behavior. Journal of Experimental Education, 1960, 29, 107-118.

David, A. American status systems and the socialization of the child. In C. Kluckhohn and H. A. Murray (Editors) Personality in nature, society and culture. New York; Alfred A. Knopf, 1954, Pp. 567-576.

Druding, Aleda E. Selection and preparation of teachers to serve in schools in culturally different areas. In A. Jewett, J. Mersand, and D. V. Gunderson (Editors), Improving English Skills of Culturally Different Youth in Large Cities. Washington, D. C.; US Government Printing Office, 1964. Pp. 187-194.

Educational Policies Commission. Education and the Disadvantaged American. Washington, D. C. National Education Association, 1962.

Educational Research Service. School Programs for the Disadvantaged: Circular Member 2. Washington, D. C. National Education Association, 1963.

Gage, N. L. Psychological research on teacher education for the great cities. Paper read at Research Council of the Great Cities Program for School Improvement, Chicago, June, 1963.

Groff, P. J. Dissatisfactions in teaching the cd child, Phi Delta Kappan, 1963, 45, 76

High, P. B. Educating the superior student in the deprived area school. American Teacher Magazine, 1963, 48 5ff.

MacKie, R. P., Kvaraceus, W. C. and Williams, H. M. Teachers of Children who are Socially and Emotionally Maladjusted. Washington, D. C.: US Government Printing Office, 1957.

Marburger, C. A. Considerations for Educational Planning. In A. H. Passow (Editor), Education in Depressed Areas. New York: Teachers College, 1963. Pp. 298-321.

McGuire, C., and White, G. D. Social origins of teachers - in Texas. In L. J. Stiles (Editor), The Teacher's Role in American Society. New York: Harper and Brothers, 1957, Pp. 23-41.

Mead, Margaret. The School in American Culture. In A. H. Halsey, Jean Floud, and C. A. Anderson (Editors), Education, Economy and Society. New York: The Free Press of Glencoe, 1961, Pp. 421-433.

Mydral, G. An American Dilemma: The Negro Problem and American Democracy. New York: Harper and Row, 1963.

Riessman, F. The Culturally Deprived Child. New York, Harper and Row, 1962.

Rousseve, R. Teachers of Culturally Disadvantaged American Youth. Journal of Negro Education, 1963, 32, 114-121.

Sexton, Patricia C. Education and Income Inequalities in our Public Schools. New York: Viking Press, 1961.

Sims, V. M. The Social-Class Affiliations of a Group of Public School Teachers. School Review, 1951, 59, 331-338.

Symonds, P. M. Personality Adjustment of Women Teachers. American Journal of Orthopsychiatry, 1941, 11, 14-20.

Vontress, C. E. Our demoralizing slum schools. Phi Delta Kappan, 1963, 45, 77-81.

Warner, W. L., Havighurst, R. J. and Loeb, M. B. Who Shall be Educated: The Challenge of Unequal Opportunities, New York; Harper and Brothers, 1964.

Wattenberg, W. Menge, J. W. Faunce, R. Sullivan, J. C. Ellsworth, R. E. Peters, Mildred Rasey, M. I. and McDaid, E. Social Origins of Teachers - A Northern Industrial City. In L. J. Stiles (Editor), *The Teachers Role in American Society.* New York: Harper and Brothers, 1957. pp. 61-70. (b)

Wickman, E. K. *Teachers and Behavior Problems.* New York: The Commonwealth Fund, 1938.

Wolf, Eleanor P., and Wolf, L. Sociological Perspective on the Education of Culturally Deprived Children. *School Review,* 1962, 70, 373-387.

Arnold B. Cheyney is Assistant Professor of Elementary Education, School of Education, University of Miami, Coral Gables, Florida.

PROGRAMS AND PLANNING FOR THE DISADVANTAGED

by:

Dr. David E. Dial

An educationally disadvantaged child, substantially below grade level on standardized achievement tests, is often found to be from a culturally or socially disadvantaged family with an annual income below $3,000.

A new graduate course, "Teaching Disadvantaged Youth," offered by Northwest Missouri State College and Project Upward Development, a Title III project (P.L. 89-10), studies the problem of the non-urban disadvantaged. The project provided tuition, books and approximately $20,000 for selected follow-up classroom activities designed for the educationally disadvantaged. With the exception of St. Joseph, the 18 Missouri counties surrounding the campus of Northwest Missouri State College at Maryville were considered non-urban.

Teachers enrolled in the course prepared detailed case studies isolating a slower achieving student.

Retarded educational achievement, coupled with emotional stress, reveal that in the priority of need fulfillments, many problems must be solved before a child is prepared to learn in a classroom environment. The true ability of a professional teacher is to properly identify or diagnose learning difficulties and to prescribe appropriate teaching materials, techniques and services.

While there are many exceptions, these characteristics are common in non-urban disadvantaged children. Self-images and self-confidences are low due to a school history of constant failure and frustration. Because of the lack of personal experiences and low vocabulary skills, youngsters appear not to be interested in abstract learning without practical applications. Long range motivational goals in learning are often inappropriate as these students prefer knowledge which can satisfy their immediate needs.

General characteristics of non-urban educationally and culturally disadvantaged children are similar in many respects to the urban disadvantaged. Exceptions include the lack of minority and sub-cultures found in urban areas.

Non-urban children are less likely to drop out of school than the urban child, partially because teachers in smaller schools are familiar with the families and frequently pass students on to the next grade. Teachers in non-urban areas are less likely to have homogeneous groupings. These teachers may find 15 to 30 per cent of their students culturally and educationally disadvantaged in a heterogeneously grouped classroom.

If educators in non-urban areas are to adequately provide educational opportunities for the "lower 30 percent" of the student population, then it is apparent that child services must be made available in all schools regardless of their size. A smaller school that cannot justify a full-time child service is overlooking the needs of a number of educationally and culturally disadvantaged youth. Sharing of services between school districts is a necessity.

An example of cooperative efforts is a plan in a four-country Northwest Missouri area to provide speech therapy services.

Two mobile vans with necessary equipment will be utilized to serve the smaller school districts. Another plan involves the sharing of a nurse in a health service program between four small school districts. Guidance services, psychological and diagnostic services are also planned utilizing the same sharing approach. Summer programs for the educationally disadvantaged can successfully be arranged through co-operation between schools as well as audio-visual cooperatives.

Teacher aides are needed to release the teacher for individualized instruction. However, many non-urban schools find finances to be a problem, so some schools are utilizing community volunteers for library, kindergarten and clerical aides. Other schools are using student aides for teachers, for example, the more academically inclined students in a classroom might tutor the slower ones, junior high students might tutor elementary pupils having difficulty in their school work, members of the Future Teachers of America organization might organize an after school or Saturday tutorial program.

Northwest Missouri State College has recently developed a "tutorial-aide" program which will place college juniors with elementary and secondary pupils who have academic difficulties. College tutors work with students on a one-to-one or one-to-four (maximum) basis, often by bringing chairs into the hallway or into whatever space might be available in the school. College credit will be provided for the tutors and there is no expense to the school district.

Even if the educationally and culturally disadvantaged child is provided with the full benefits of school services, we know that individual classroom teachers are the keys to success in any school endeavor. Certainly, dynamic leadership of administrators in setting the school learning environment is important.

The first step in an offensive against educational deprivation is the recognition of the school-wide problem. This is more difficult for non-urban teachers because problems are not as dramatic as in urban areas.

Teacher workshops emphasizing child study could be a beginning. Outside consultants and speakers are excellent as stimulants. A well stocked professional library with books and pamphlets related to the underprivileged and disadvantaged child should be available for teacher's reading.

Periodic meetings should be held during the school year and during school hours to share progress reports and to discuss problems with consultants. Teachers should be allowed several days with pay to visit schools with similar problems, and also urged to attend workshops, short courses, or night college courses to gain more insight in teaching educationally and culturally disadvantaged students.

DISPARITIES IN URBAN SCHOOLS

by:

Wilfred B. W. Martin

There is now sufficient evidence from a variety of sources to indicate that scholastic goals, interests, expectations and behaviours are affected by the nature of the social environment of the pupils. For instance, the area of the community in which he lives has frequently been found to be an independent variable in his behaviour. Several studies of inner-city schools in the United States have documented the debilitating effects that, despite their formal intentions, these institutions have on pupil performance (for example, Jacobi, 1960; Mayer, 1961; Riessman, 1962). Our awareness of the inequity of the matter has been sharpened by Conant's comparison of slum schools with suburban schools (1961). Becker (1952) has reported that there is variation in teacher-pupil relationships along social-class lines. He found that this variation is due to attitudes that teachers hold toward different social strata.

Preliminary observation has revealed that a state of inequality, similar to that described above, exists between inner-city and suburban schools in Canada also. The study reported here was designed to assay the nature and extent of this inequality in a large urban area in eastern Canada. Two elementary schools, "Higher Levels" and "Hillside", were selected as the setting for the research. Higher Levels is located in a relatively affluent area, while Hillside is in an economically deprived area of the city. Systematic observation was undertaken in one grade 5 classroom in each of the two schools. Specifically the investigation concentrates on: (1) the physical differences between the schools and the disparities in the facilities available, (2) the attitudes of the teachers toward the children and the general atmosphere in the schools with regard to pupil behaviour and misbehaviour, (3) the differences and similarities in the interaction among the pupils and between teachers and pupils in the two classrooms chosen, and (4) the social positions of the pupils within each classroom, as seen by the pupils themselves.

Both observational and informal interviewing techniques were employed in this study. I entered each classroom as a non-participant observer and sat at the back of the room. The fact that I took the role of observer in the classroom meant that it was possible that my presence would influence student and teacher behaviour to a greater or lesser degree. The teachers who taught in the classrooms during my observation said that, except for the first hour or so, their behaviour was not affected by my presence. They unanimously agreed that the students' behaviour in general was only slightly modified during the first hour of observation, and that some students were not influenced at all by my presence. The informal interviews were not structured in that there were no standardized questions used in them. They were carried out in general conversation with the students and teachers in the corridors, the lunch room and anywhere the opportunity arose.

THE SCHOOLS: A DESCRIPTION

A survey of the occupations of the fathers of the children in both schools disclosed that the majority of the pupils in

Table 1. Occupations of the Fathers Represented At Each School

Occupational Category	Schools	
	Higher Levels	Hillside
Professional	27%	
Semi Professional	3%	1%
Proprietors, Managers and Officials, Large and Small Organizations	25%	8%
Clerical and Sales	16%	6%
Skilled	10%	19%
Semi-skilled	14%	3%
Unskilled	2%	47%
Unemployed	-	13%
Other	3%	3%
Total	100%	100%

In placing the occupations into the first seven categories listed here the author used the classifications given by Peter C. Pineo and John Porter in Appendix 1 "Occupational Prestige in Canada", _The Canadian Review of Sociology and Anthropology_ 4:36-40, Feb.,1967.

each school come from relatively homogeneous economic backgrounds. Thirteen per cent of the fathers represented at Hillside are unemployed while another 47 per cent are unskilled labourers (Table 1). From this table it can also be seen that 55 per cent of the children at Higher Levels are from homes where the breadwinner can be classified as either professional, semi-professional or managerial.

Hillside School is a three-storey wooden structure. In a recent report the Assistant Superintendent of the School Board which administers both Hillside and Higher Levels had described Hillside as a "very old substandard school" which has been kept in operation because "recent building of new elementary school classrooms has been barely sufficient to keep pace with the normal increase of school population within the city." He wrote that it is "not adequate for present day educational activities... should have immediate priority for replacement."

There are various signs of the changes that have been made over the years in the layout of the basement and first floor of Hillside. For example, the arrangement of rooms in the basement is such that in order for the grade 1 boys to get to their classroom they must either use the girls' entrance to the school and then pass through the girls' cloakroom and washroom to get to their own cloakroom and washroom, or they must use the boys' entrance and pass through the girls' cloakroom and washroom to get to their classroom. (See Figure 1.) By looking at Figure 2 one can see the unique and obviously inconvenient features of the layout of the first floor. There are two ways to get to the staff room, through the grade 2 and grade 5 classrooms (Route 1, Figure 2) or through the grade 5 classroom (Route 2, Figure 2). This situation has the potential for creating innumberable disturbances within the classroom concerned. However, the staff has adjusted itself to the situation, and visits to and from the staff room take place, for the most part, when classes are not in session. Another quaint feature in physical arrangement of this floor lies in the route to the "opportunity classroom" or "kitchen", whereby one has either to go by way of the grade 2 classroom or the Principal's Office (Figure 2).

Hillside is located at the corner of Hillside and Smith Streets. Because of the limited size of the school playground (approximately 20' x 30'), the majority of the children are forced to play on the streets and sidewalks during the recess and lunch breaks. Higher Levels is a modern new school. It was opened in 1968 to serve a subdivision that had been established a few years earlier. Ample playground space is available here. The differences between the playgrounds available at the two schools result in differences in the continuity of play activities engaged in. The Hillside pupils are continuously interrupted by the traffic on the streets, whereas the pupils at Higher Levels have more freedom and seem to concentrate more on the play activities than on the happenings around them.

Table 2 provides some general information about Hillside and Higher Levels. In addition to the regular and opportunity classes which are to be found at both schools, Higher Levels has the following classrooms, all of which are currently in use: an art room, a music room, a projection room (also used as a lunch room), a gymnasium-auditorium, and a library. There are not only differences in the amount and quality of facilities that are available in each school, but there are differences in the resources available with which the students are able to purchase aids for their school work. For example, one morning the teacher

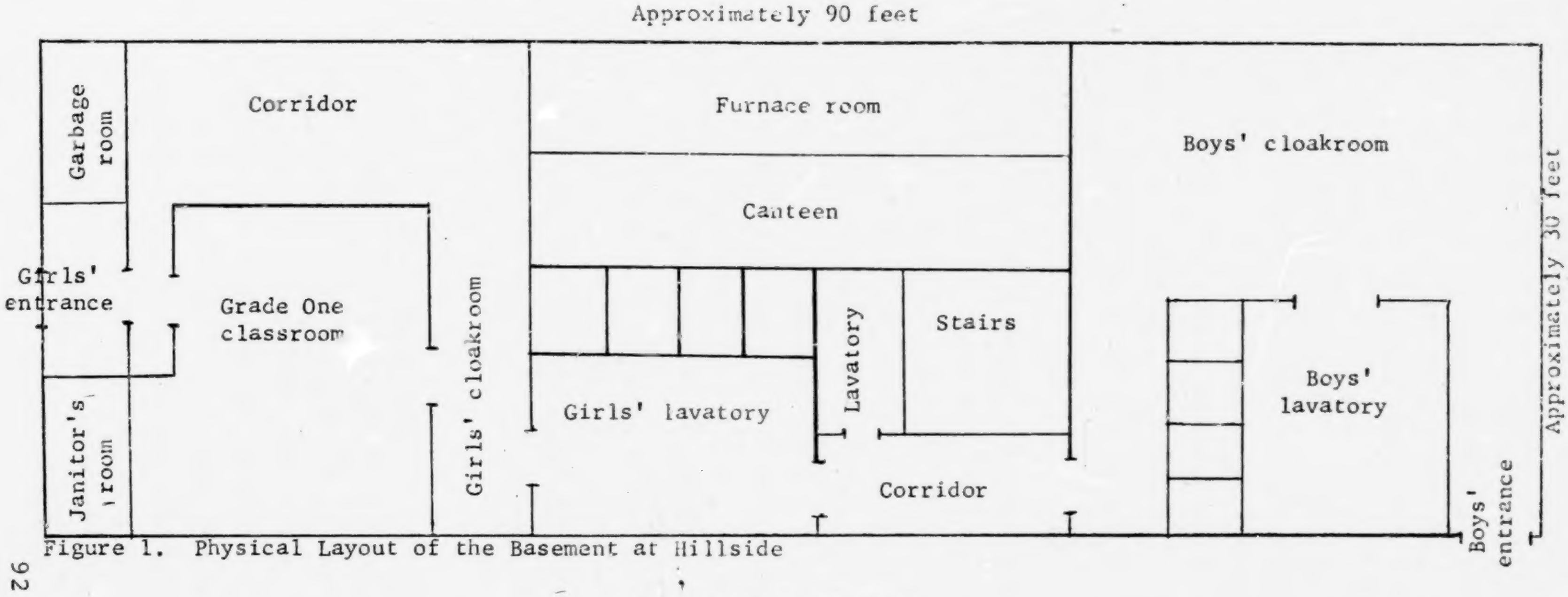

Approximately 90 feet
Approximately 30 feet
Garbage room
Corridor
Furnace room
Canteen
Boys' cloakroom
Girls' entrance
Grade One classroom
Girls' cloakroom
Girls' lavatory
Lavatory
Stairs
Boys' lavatory
Janitor's room
Corridor
Boys' entrance

Figure 1. Physical Layout of the Basement at Hillside

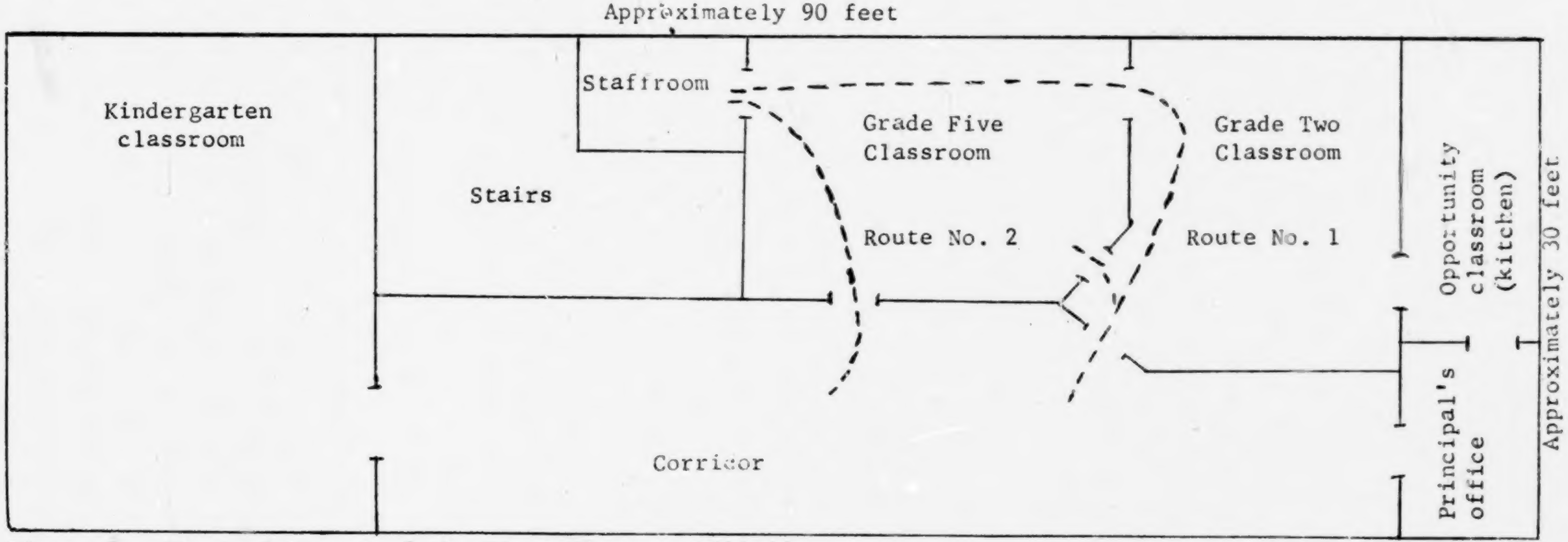

Approximately 90 feet
Approximately 30 feet
Staffroom
Kindergarten classroom
Grade Five Classroom
Grade Two Classroom
Stairs
Route No. 2
Route No. 1
Opportunity classroom (kitchen)
Principal's office
Corridor

Figure 2. Physical Layout of the First Floor at Hillside

of a Hillside class told the pupils that in the afternoon they would be studying English and becoming acquainted with some new words. She said that if any of them had to borrow dictionaries from their brother, sister or friend in another class they had "better do so" before they came back to the classroom after lunch. It was learned from the teacher and pupils that several of them did not have dictionaries of their own, but shared one with a brother or sister in another class or borrowed one from a friend elsewhere. The reason why the teacher reminded them to get dictionaries, if they did not already have one, is that "going to other classes to borrow books is disturbing to both classes."

Table 2. Hillside and Higher Levels Compared

	Hillside	Higher Levels
Grades	K-6	K-6
Total Enrolment	233	762
Enrolment in Classes Observed	35	40
Regular Classes	7	20
Opportunity Classes	1	1
Teachers with University Degrees	1	13
Teachers without University Degrees	7	13
Total Teachers	8	26

GENERAL ATTITUDES AND INTERACTION WITHIN EACH SCHOOL

Most of the teachers at Hillside have a different feeling about the area which the school serves than they do about the children in the area. None of the teachers live in it, and for the most part, they speak of it disparagingly. However, they felt a degree of responsibility for and attachment to the children in their classes. The following remarks made by teachers at various times illustrate their different attitudes. Most of these comments were made during general conversations, and are not the results of direct questioning by the researcher. Miss Dubin said:

> This class is the best one I've had since I've been here. They are really good kids but their parents are not interested .....In the other places I've been at least two-thirds of the parents were interested and one-third wasn't but here it's the opposite to that. Only about one-third is interested

Miss Parsons remarked:

> I set homework for them but only a few will get it done. No one at home cares if they do it or not.

After waiting an hour for a parent to come to the school to talk with her about one of the pupils, Miss Olsen observed disgustedly:

> I was supposed to meet Mrs. Butt this afternoon and she didn't turn up. What can you do? She's not one bit interested in Henry's school work ....I suppose you got to try and do your best you know.

In commenting on her class Miss Jones said:

> I have a real good class. Some of the boys are mischievous but I like them like that..... It's too bad the poor children have such home lives.. Did you see the lunches that some of them bring to school?......Bread and butter, that's all.

When questioned about the home backgrounds of their pupils, the two grade 5 teachers at Higher Levels implied that these children were from educated families. They made such comments as:

> Jules' father is a University Professor.
>
> Gladys came here from Africa. She speaks three different languages and is a pretty good student. Her father is at the University.
>
> Lewis is a good student. He went to school in several countries, Germany and Switzerland.

One teacher said that she saw all of the parents of her pupils. The other said, "I've seen all except two or three." When asked if they had any problems getting their pupils to do homework, one of the teachers commented:

> I have no complaints about their homework. Of course, we don't give them that much, unless it is something that some of them have to finish.. (meaning, something which was set for the pupils to do during regular class periods but they did not get finished.)

The other teacher said:

> Some of the parents have wondered why we haven't given them more work to do at home than we have.

TIMETABLES

The class timetables were followed rigidly only when a lesson involved other teachers coming into the classroom or the pupils going to other classrooms. The former was the procedure followed at the Hillside class for history, geography, and French, and the latter was the case at the Higher Levels class for science, French, music and physical education. In other subjects the timetables were used more as a guide. Some-times the teacher went over the time allotted for a particular subject, and occasionally she finished before the time was up. Whether or not the time allotted for a particular subject had been exhausted, it was the teacher who decided that it was time to move on to another subject.

MEASURING PROGRESS

With only one exception the walls of both classrooms are decorated with the same type of materials. Information relating to geography, history and mathematics, as well as examples from the pupils' work in English and art, are to be found on the walls in both classrooms. The exception is the practive of posting the results of each unit examination and of each Friday's spelling test on the walls of the Hillside class. The results are presented in percentage form. In conversation with the Higher Levels teachers it was learned that they prefer not to give the pupils a percentage mark. Instead they classify each child's progress as excellent, very good, and so on. Moreover, the pupil's performance is discussed with his parents at an appointed time after the first term and periodically thereafter. Hillside is now adopting a similar policy requiring individual parents to meet the teachers of their children at a specific time to consider the child's performance and other related matters.

METHODS OF CONTROL

There were no noticeable differences in the pupil behaviour in the corridors of either school or in the classroom when the classes were not in session. In both schools the prefects and teachers on duty maintain orderly behaviour. The pupils in both schools show respect for their teachers. They are mannerly in the tone of voice and expressions used in asking questions and receiving things from their teachers as well as excusing themselves when moving in front of a teacher. However, the interactions among the students do not contain these same elements of behaviour.

The philosophy behind the treatment of misbehaviour and consequently the method of punishment used by each principal is different. The principal at Hillside usually carries a strap in his pocket and he often uses it on misbehaving pupils. The conduct which the principal views as meriting his use of the strap covers a wide scope of activities. For example, Harrison and Larry got "strapped" for fighting in the basement of the school, and Keith received a strapping for talking across the classroom while the principal was teaching a science lesson. Keith was chastised because "he didn't listen to me, even after I told him to stop talking a couple of times . . . . Some of the boys need to be straightened up, and that's the only thing you can do with them."

The principal at Higher Levels has a different attitude toward the pupils who behave improperly, and consequently he has a different method of dealing with them. The strap has never been used at Higher Levels. The principal favours"a relaxed atmosphere where you ask students to do things or not to do something and give them the reasons for asking." This idea of appealing to the student's reasoning ability was brought out by the principal's request made over the public address system that students in certain areas of the school, unless they have a "good" reason for doing so, refrain from entering other areas when they arrive in the morning or during the recess and lunch breaks. He explained that their presence in various parts of the school unnecessarily creates congestion in certain areas. During another announcement the principal warned the pupils of the dangers in jumping off the low part of the school roof into the snow below. He said, "there were several of the boys doing this over recess time and I don't want any of you to do it any more". He claimed to know the boys who had done this "terrible thing' and rather than identifying them publicly he warned everyone of the dangers involved and told them that they would be dealt with if they climbed on the roof again.

CLASSROOM INTERACTIONS

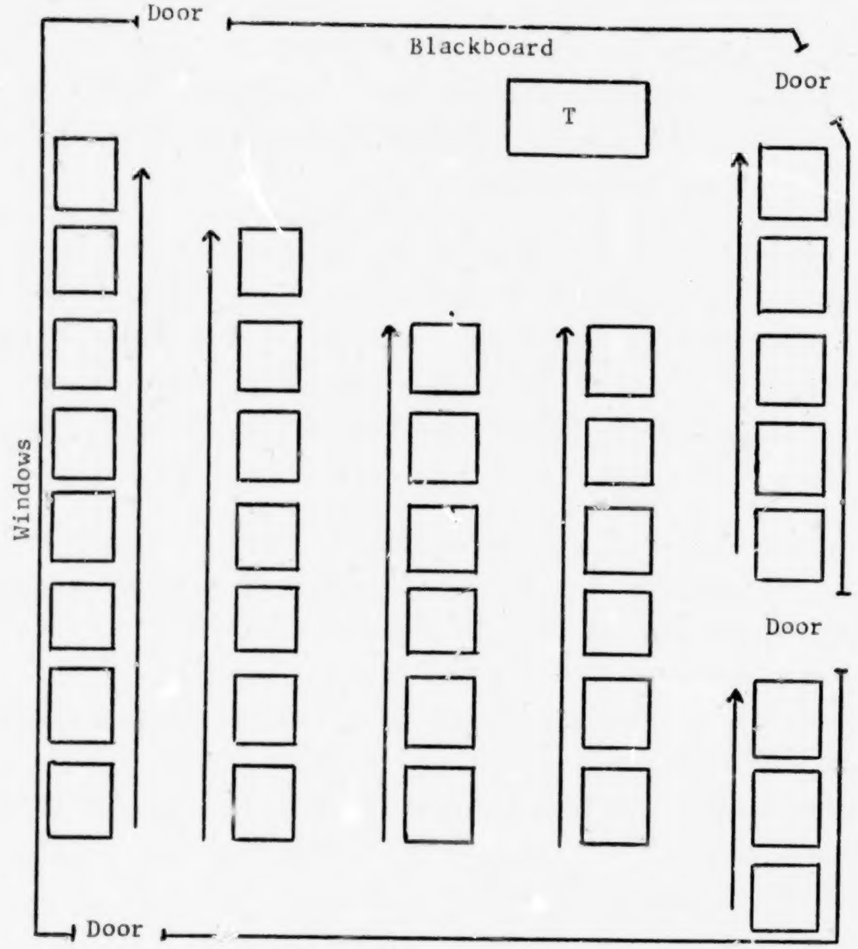
At the outset it should be pointed out that the classroom is more often than not a very busy place. In a study of elementary classrooms Jackson found "that the teacher engages in as many as 1,000 interpersonal interchanges each day" (1968:11). In addition to the relationships between teacher and student there are also many ties among the students themselves. By using Stebbins' modes of communicating role distance behaviour (1969), the author has pointed to some of the activities in which students engage as a means of communicating with each other (Martin, 1970: 28-29, et passim).

It is recognized that the amount of physical movement and vocal behaviour of any student during a regular 45-minute class period can be both sizable and chaotic. At times instances of classroom behaviour are relatively continuous or fused, while at other times they are more discrete. In view of the myriad activities that may be taking place within a classroom at any one time, no attempt will be made to describe all of them. Instead, specific activities will be used to demonstrate certain generalizations about behaviour observed within each classroom.

Since it was found that the activities of the pupils are to a large extent influenced by the teacher's definition of the situation and her resultant activities, it was also necessary to take her actions into account when observing the interactions among pupils as well as when observing the interactions between pupils and the teacher.

There is little difference, if any, in teaching performance with respect to competence in subject matter and interest in pupils. However, in certain subjects there are variations in teaching methods, and while the teachers had no disciplinary problems, as such, there are dissimilarities in what they defined as proper and improper activities for their pupils to engage in. Before examining these activities we shall take a look at specific instances of interaction within each classroom and point out some of their differences and similarities.

The difference in seating arrangements and grouping procedures was one of the first features noticed in the two classrooms studied. At the Hillside class the pupils' desks are placed in rows of six, seven or eight, running parallel to each other at a distance of two to three feet apart (Figure 3). Each child has his own seat, which is in a fixed location that was selected by him when the school year began or to which he has been moved by the teacher for disciplinary reasons. Pupils are not allowed to move to another seat. All of them sit facing the front of the classroom.

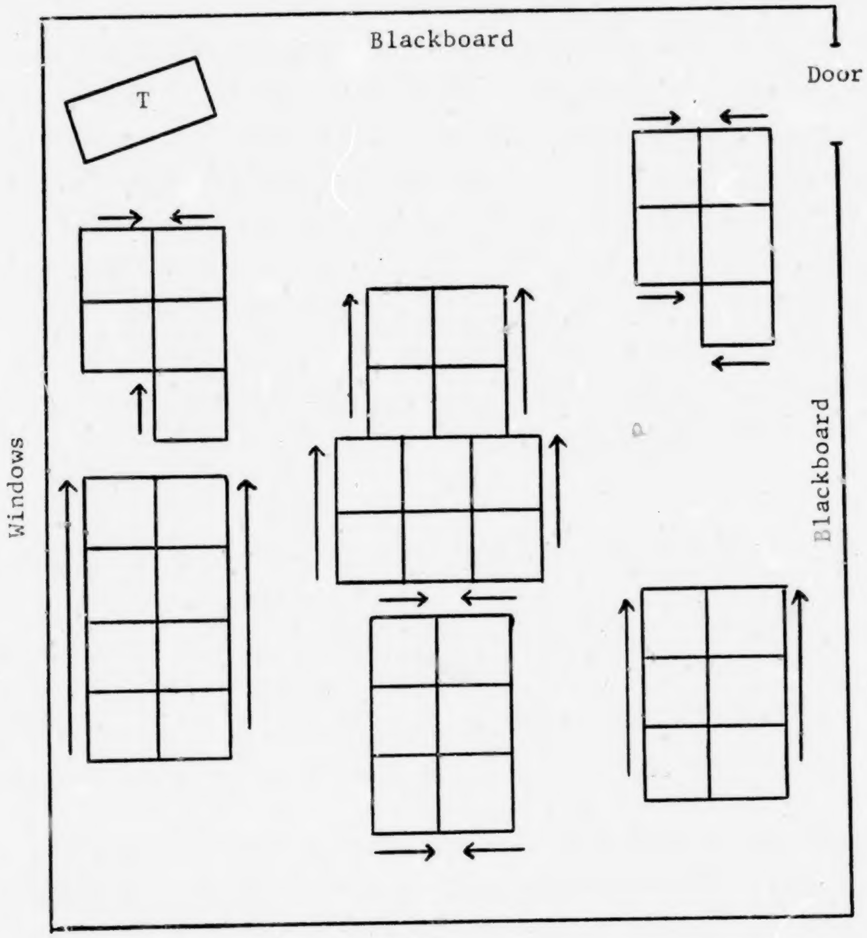

Door
Blackboard
Door
T
Windows
Door
Door

Key: T = teacher's desk

☐ = pupil's desk

→ = direction in which pupils' desks are facing

Figure 3. Physical Layout of Grade Five Classroom at Hillside


Blackboard
Door
T
Windows
Blackboard

Key: T = teacher's desk

☐ = pupil's desk

→ = directions in which pupils' desks are facing

Figure 4. Physical Layout of Grade Five Classroom at Higher Levels

By contrast, the pupils' desks in the Higher Levels class are placed in four separate groups which shall be referred to here as physical groups (Figure 4). Each student has his own seat. It is in a fixed location that has been selected by the teacher in consultation with the pupil. Some of the pupils sit facing the front of the classroom while others sit facing each other. Pupils are placed according to progress during the mathematics and reading periods, and may be required to change seats with others in different physical groups in order to obtain group homogeneity. Similar changes may also occur when ad hoc groups are formed to carry out different projects in subjects such as history and geography.

The reasons for the progress and project groupings are obvious. Those reasons, together with the teacher's idea that physical grouping not only gives more space for moving around the classroom but also gives the pupils an opportunity "to work together and to help each other with their work," reflect one of the differences in teaching methods that exist between the two classes.

Miss Avery, the grade 5 teacher at Higher Levels, divides the students into three groups during the mathematics period. Each group works at different problems depending on the progress that it is making. She does not teach the entire class at any one time, but instead she moves from one group to another, sometimes using the blackboard at the front of the room and at other times using the one at the side, the choice of board depending on the location of the group being taught at the time. As she teaches the pupils in one group those in each of the other two progress groups are either working individually, working with two or three other students in the same physical and progress group, or moving back and forth from one physical group to another. Interactions between members of these groups are generally about the work which the pupils are doing at the time.[1]

Unlike the pupils in Miss Avery's Higher Levels Class, those in Miss Jones' Hillside class are not grouped for any subjects. Miss Jones always teaches from the front of the room. During the mathematics period she stands at the front of the classroom and assigns the same mathematics problems to the entire class. If the material is new she explains it to the entire class simultaneously, answering any questions the pupils might have, and querying them in her attempts to ensure that they understand what they have to do. After this introduction she walks around the classroom helping individual pupils who are in need of it and evaluating them as she looks at a random sample of individual books. There was an attempt made to keep all the students working at the same problems in their mathematics books.

A specific example of this occured one morning when the teacher, Miss Jones, told the entire class to go only as far as problem 9 on page 89. After 15 or 20 minutes Keith asked if he could go farther than number 9 because he had finished all the problems up to and including this one. The teacher replied "No, that's enough to do today." A few moments after this Miss Jones asked, "How many are finished?" About one-half of the class were. They indicated this by raising their hands in response to Miss Jones' question. They were not allowed to go farther in their mathematics books and each found other things to do. Three or four began to do a review of the problems they had done on previous days, while three others got books from the library at the back of the classroom. The pupils who got books asked the teacher's permission to do this by raising their hands and waiting for her to ask them what they wanted. Four or five whispered across the classroom. The teacher spoke to those who were whispering. She said "Stop talking and finish your maths. If you're finished there must be something you can do." After an additional five minutes Miss Jones asked, "Now how many of you are not finished?" Five of them were still working on the assignment. The teacher went to the seats of these students, before she began to correct the work of the entire class.

---

[1] Students who sit in physical groups 2 and 3 (see Figure 4) during mathematics periods are in the same progress group. During one mathematics period three pupils from group 3 moved from their seats a total of six times going to someone's seat in group 2. Five students from group 2 made a total of ten visits to group 3. Out of these 16 visits between groups 2 and 3, 14 were about the mathematics problems which the students were doing at the time. There was a total of ten visits made among the other physical groups. Six of these visits were concerned with mathematics.

The interaction pattern in each classroom was different during the mathematics periods in that while Miss Jones taught the whole class simultaneously and moved around the classroom helping individual pupils, Miss Avery taught groups of pupils and moved around the class helping these different groups more than individual pupils. Also, since the pupils at Higher Levels have considerably more freedom to move around in the classroom than those in the Hillside class, and since they often went to the teacher wherever she happened to be at the time, the Higher Levels teacher became the center of little groups of pupils seeking advice and evaluation of their work. Consequently, the teacher at Higher Levels cannot move about the classroom as freely as can Miss Jones at Hillside.

The teacher in both classrooms would often tell the pupils to "find something to do" until everyone was finished or until the class period ended. There are pupils who "fool around" or "daydream" rather than embrace the role expectations which the teachers have for them. In neither of the situations, that at Higher Levels or Hillside, are all the pupils "tuned in" at the same time on what the teacher is trying to do. She is communicating with different individuals at different times. From the amount of nonacademic behaviour observed, it is evident that more pupils are responding to extraneous stimuli when the teacher at Hillside is teaching mathematics than when the teacher at Higher Levels is teaching this subject.

In both cases some pupils had to find something to do while they waited for others to finish. However, the number of pupils waiting at any one time at Higher Levels was not as great as that at Hillside, because in the former school the number whom the teacher tried to keep working at approximately the same problems was smaller. One big difference was that at Higher Levels the teacher often encouraged specific students who were finished to help others who were not and who were having difficulty with their work. For example, Pearl, a pupil in mathematics group 2, went to the teacher who was helping progress group 3, and asked her how to do a specific problem. The teacher said that she was busy and told Pearl to ask Russell, who was also in progress group 2 to help her. After the teacher was finished at progress group 3, she checked to see if Russell had helped Pearl with her problem. At Hillside the teacher did not have the pupils helping each other. Sometimes, however, the pupils did try to help each other by talking across the classroom or turning around to the person behind. These activities were defined as misbehaviours and often terminated by the teacher.

Some of the pupils in both classes got library books while they were waiting for others to get their work finished. At Higher Levels the pupils got these books without leave from the teacher. If this happened at Hillside the children concerned would be reprimanded for leaving their seats without permission.

During the reading periods at Higher Levels, the activities of the pupils and interactions among them are similar to those of the mathematics periods. Except for the reading involved in the different subjects, the Hillside class does not have a reading program as such.

The students in the Higher Levels class are often divided into small groups to do projects. Usually these projects involve getting information on specific topics by using the school library. Such a project was assigned during one of the geography periods observed. Miss Avery divided the class into groups of eight and gave each group the name of a different animal to obtain information on. They were given the instructions that it was to be a group effort and that each group had to appoint someone to report back to the class on the findings of the group. During the first period two of the five groups went to the school library while the other three stayed in the classroom and used their geography textbooks as well as the library at the back of the class. In the next geography period the two groups that used the library in the previous geography class now stayed in the classroom while the other three groups went to the library. During both geography periods all five groups worked with very little supervision from Miss Avery. Each group also appointed one of its members to report on the information that had been gathered.

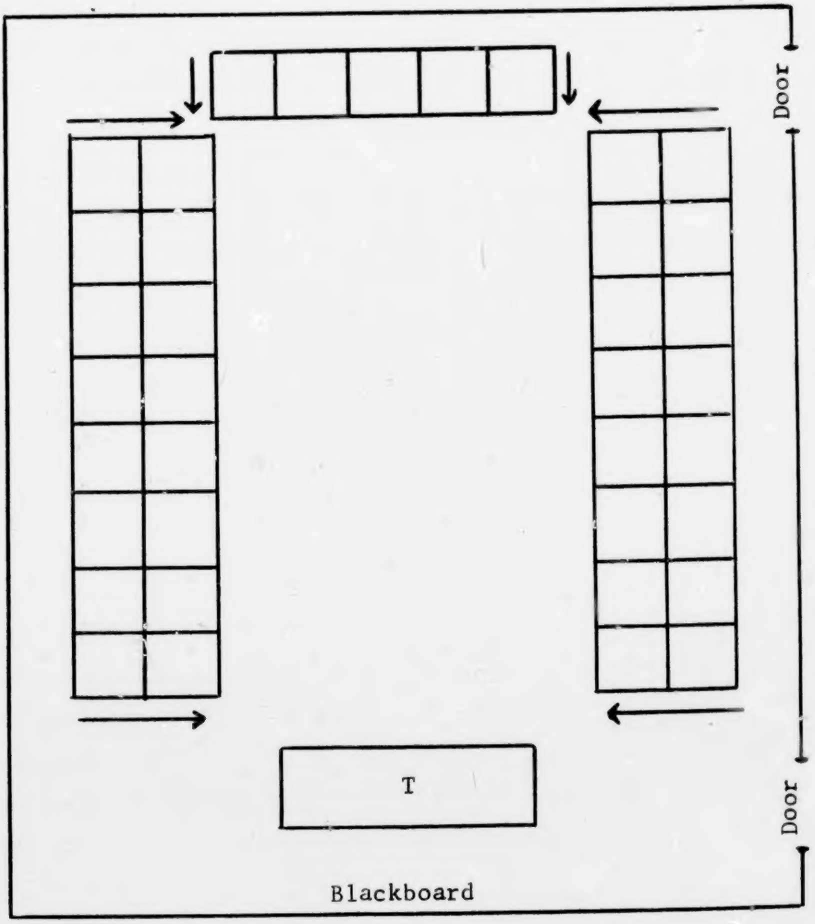
Grouping for such projects had not been introduced into the Hillside class. While one of the reasons for not having this procedure at Hillside school may be the lack of a school library, there is also a reluctance to accept innovations which seem to threaten the traditional methods of approach. Miss Jones' defensiveness when questioned about progress grouping is indicative of this spirit. She said, "I would like to group my students but what can you do when you have twenty-five?......There isn't enough room in the class anyway."

There were more class discussions in the Higher Levels class than in the one at Hillside. As well, more pupils took part in the discussion in the former than in the latter. In a one-week observation period at the Hillside class there were two class periods where the pupils discussed the lesson being taught at the time. In each period about ten of the pupils took part in the discussion. During a similar observational period at the Higher Levels class there were five class periods where pupils discussed the subject currently being taught. In each of these discussions 20 or more of the students took part, while in one particular period some 35 of the 40 students were involved to a greater or lesser degree.

There are only a few similarities between the two schools in the teacher-pupil interaction patterns. These similarities are found when Higher Levels pupils are not grouped into progress or project groups. Under such circumstances Miss Avery, like Miss Jones, teaches from the front of the classroom and moves about helping individual pupils and evaluating their work. Even in these circumstances, however, there are differences between the classrooms,for Miss Avery is still the gathering point for pupils with something to ask or show her. This stands in contrast to the situation at Miss Jones' Hillside class, where most of the pupils who want to talk to the teacher remain seated with their hands raised and propped at the elbow while waiting patiently for the teacher to come to them. Only occasionally did any pupil speak to the teacher without raising his hand. Sometimes he just raised his hand and said what he had to say without waiting until the teacher saw his hand. In the majority of cases, however, each child raises his hand and waits for the teacher to ask what he wants before he says anything.

Another difference in the teacher-pupil relationship in these two classrooms is the way in which the pupils approach their teachers. We have already pointed out that the pupils at the Higher Levels class go to the teacher often regardless of where she is in the classroom, even if she is teaching another progress or physical group. In contrast, the Hillside pupils rarely leave their seats to go to the teacher. The only time they do this is when the teacher is sitting at her desk and not talking to any other pupil. Each of the 12 pupils who were observed going to the teacher under these circumstances did so with his hand raised as he approached the teacher and each waited for her to speak first before speaking himself.

It has been pointed out that the pupils of the Higher Levels class move from their classrooms for certain subjects: French, music and physical education. Music and physical education are taught in a classroom similar to their main classroom. In each of these rooms the activities of the pupils, the interactions among them, and between them and the teacher are different. The reason for variation between the interactions in the French class and those in the main classroom are: (1) The arrangements of the seats in each classroom are different (see Figures 4 and 5). (2) In the French class every pupil has to have his name on his seat for the purpose of identification. The French teacher teaches several classes of French, and she does not know the names of all


Door
T
Door
Blackboard

Key: T = teacher's desk

☐ = pupil's desk

→ = directions in which pupils' desks are facing

Figure 5. Physical Layout of French Classroom at Higher Levels

the students. (3) While French class is in session the pupils are not allowed to move from their seats or to talk back and forth to each other. (4) The nature of the subject matter and the method of teaching used are different.

With the exception of the presence of a different teacher in the classroom, the interactions in the French periods at the Hillside school are similar to those found during all other periods at this school. The interactions among the pupils are at a minimum mainly because of the restrictions put on them. In fact, the interactions among the pupils in the French classes at each school are in many ways alike for the same reason.

DISORDERLY BEHAVIOUR

The teacher's definition of what constitutes disorderly behaviour affects not only the teacher-pupil interaction but particularly the interactions between pupils. We shall now look at some of the differences in the types of behaviour considered by each teacher to be inappropriate for the classroom and how this affects the interactions among the students.

"Whispering" is considered to be "o.k." by Miss Avery. She said, "Sure they can talk, unless it is disturning to others. If someone is talking to them they should stay quiet." Since the pupils are free to move around the classroom and talk to each other, whispering across the classroom, that is to say, from one physical group to another, is all but eliminated. The fact that some of the students are not facing the front of the classroom, together with the freedom given them for moving out of their seats, has meant that "turning around" is not a problem. Sometimes some of the pupils moved around the classroom "too much" and without "adequate reasons for doing so." In such situations the moving was considered disorderly and had to be terminated by the teacher.

In contrast, all four teachers of the Hillside class consider whispering across the classroom to be disorderly behaviour, especially if it is prolonged or if the pupils involved are a considerable distance from each other. This type of activity is common in the Hillside classroom because the pupils often have a desire to talk to someone, but are not permitted to move from their seats. Thus the only alternative is to whisper back and forth. Turning around, that is to say, looking toward one of the sides of the classroom or toward the back of it, is also considered to be undesirable, especially if the pupil who has turned is trying or assumed to be trying to "copy" from someone else's work. This was vividly illustrated by the teacher when she gave out a sheet of paper with some geography questions on it. She saw a couple of the pupils turning around and talking to those behind them. She reminded them that it is easy for them to cheat, but that they should keep their work to themselves. She said, "Keep your own work to yourself and don't go turning around." This admonishment by the teacher and the resultant pupil behaviour is indeed different from that which exists in the Higher Levels class where the desks are grouped so that the pupils may "help each other with their work."

We have already pointed out that the principals of these two schools hold different attitudes toward disciplining the pupils who have misbehaved. The different methods used to achieve the desired results have also been demonstrated. In contrast to these differences in administration, the teachers in both schools show many similarities in their handling of the incidents of misbehaviour which occur in the classroom. It should be reiterated, however, that the activities which each teacher defines as misconduct are in many cases different. Generally speaking the teacher used one of the following three methods to terminate disorderly behaviour:

1. Speaking to the entire class: for example, saying such things as, "Be quiet grade 5 class", or "You have lots of work to do, so get to work."

2. Speaking to individual pupils, telling them to stop whatever they are doing. For example, saying such things as "Be quiet Murray", "Stop talking Patrick" or"Turn around Terry". Miss Avery at Higher Levels sometimes tells specific students to sit down; i.e., those whom she considers to be walking around the classroom unnecessarily. Somethimes the teacher spoke to individual pupils by asking a question, for example, "Why aren't you working?" or "What's the trouble with you?"

3. Somethimes a sudden and prolonged interruption in the activities of the teacher is all that is necessary to get the attention of the pupils. At other times the interruptions are accompanied by stern looks at specific pupils.

Many incidents of misbehaviour were tolerated by each of the two teachers, but when misbehaviour was accompanied by incomplete seatwork the teacher concerned was especially annoyed. Several times Miss Jones made humiliating remarks to pupils who combined tardiness in doing their work with incidents of misbehaviour. For example, once she looked at Peter and said, "Why can't you do your work like Dulcie has hers done? On another occasion she told Ern that he should go out with the Kindergarten class and "stay there until you learn to behave yourself".

Having discussed some of the activities which are taking place within each of the classroom teaching situations observed, it is now time to look at the patterns of influence and attraction among the students in each classroom as seen by the students themselves.

SOCIAL POSITIONS

The social positions of popularity and of having fellow students wanting to be one's partner in carrying out a project relating to some subject studied at school were measured by a self-report questionnaire. In this discussion we shall refer to the latter social position as that of attraction.

Both classrooms studied were comprised of interlocking subgroups of pupils. At Higher Levels, however, the social positions of popularity and attraction are shared by a greater percentage of pupils than in the Hillside class. These social positions are shared by 71 per cent of the Higher Levels class and by 60 per cent of the class at Hillside (see Table 3). This table also shows that in all situations the percentage of the total number of girls chosen at the Higher Levels class is higher than that chosen at the Hillside Class. With the exception of the situation where the boys received recognition on at least one of the social positions, there is also a greater dispersion of these social positions among the boys in the Higher Levels class than there is in the Hillside class (Table 3). Not only is the popularity ranking more dispersed in the Higher Levels class but no boy or girl in this class was a choice of more than one-quarter of the class. The highest boy was the choice of 22.5 per cent of the class, while the girl receiving the highest number of choices obtained only 17.5 per cent of the class total (Table 4).

This stands in contrast to the situation at Hillside where 57.1 per cent of the class chose one girl and 31 per cent of the class chose one boy (Table 5).

Table 3 The Patterns of Social Positions

	Hillside Class			Higher Levels Class		
	Boys	Girls	Total	Boys	Girls	Total
Chosen as first choice to work on a class project	36%	37%	36%	55%	61%	58%
Receiving at least one vote as the most popular in the class	45	38	41	50	67	58
Receiving at least one vote on each social position	23	30	26	41	39	40
Receiving at least one vote on either of the social positions	66	54	60	64	79	71

With regard to selection between the sexes, it is of interest to note that in the Higher Levels class only one boy selected a girl as his first choice to work with on a project, while no girl selected a boy. Six boys of this class said that no girl in this class could be considered as being popular and eight boys did not give any answer at all. On the other hand, at Hillside seven boys selected girls as their first choice to work with on a project and one girl selected a boy. All boys selected one girl or another as being the most popular in the class.

Table 4. Pupils Sharing Popularity in the Higher Levels Class

Boys	Per Cent of Votes	Girls	Per Cent of Votes
Alvin	22.5%	Vera	17.5%
Jack	17.7	Judy	15.0
Allan	5.0	Dorothy	7.5
Kent	5.0	Edna	7.5
Lee	5.0	Jessie	5.0
Roy	5.0	Yvonne	2.5
Patrick	5.0	Lilly	2.5
Marshall	5.0	Ivy	2.5
Lionel	2.5	Pearl	2.5
Kenneth	2.5	Louise	2.5
Russell	2.5	Students answering "No girl is popular"	15.0
No answer	22.5	No answer	20.0

The fact that the social positions in the Higher Levels class are more dispersed than those of the Hillside class can be related to the finding that a higher percentage of pupils in the Higher Levels class take part in class discussions than take part in the class discussions in the Hillside class. The students in the Higher Levels class have an opportunity to interact more than do those in the Hillside class, and thus they have something on which to base attraction and popularity. The greater dispersion in the Higher Levels class is also in accord with the "helping each other" approach which is found in this classroom. This is in contrast to the idea that the individual should do his own work which is prevalent at Hillside. The lower percentage of choices across the sex line in choosing a partner for a project in the Higher Levels class and the fact that six of the boys in this school said that none of the girls in the class are popular is more difficult to understand. One can speculate that it may be connected to the types of groupings that take place in the classroom or that it may be directly related to the economic and

Table 5. Pupils Sharing Popularity in the Hillside Class

Boys	Per Cent of Votes	Girls	Per Cent of Votes
Benvie	31.0%	Dulcie	57.1%
Keith	20.0	Sharon	11.4
Charlie	20.0	Lydia	8.7
Kevin	7.7	Ann	5.7
Alfred	2.9	Vera	2.6
Harrison	2.9	No answer	14.3
Oliver	2.9		
Ern	2.9		
Vernon	2.9		
Garry	2.9		
No answer	2.9		

social backgrounds of the pupils. In either case it is an area that warrants further research before any definite correlation can be established.

SUMMARY AND CONCLUSIONS

Two schools were selected for study, one from a relatively affluent area and one from a relatively economically deprived area. First, the disparities in the school plant and equipment were presented. These differences are seemingly of a purely economic nature. There are also variations in the attitudes with which the teachers regard the areas in which the schools are located. The problem of educating parents to realize the importance of their children's education is obviously more acute at Hillside than it is at Higher Levels. There are many similarities between the methods of social control used by each teacher. However, there are differences in the attitudes of the principals with regard to their treatment of disorderly behaviour. These diverse attitudes are seemingly the result of holding on to a traditional method of disciplining on the part of the Hillside principal, and the adopting of more modern and progressive methods on the part of the Higher Levels principal.

The interaction patterns between the teacher and the pupils and among the pupils are different for each classroom observed. The following factors were found to affect these variations:

1. The physical, progress, and project grouping of the Higher Levels class in comparison to no grouping at all in the Hillside class.

2. The prevailing idea in the Higher Levels class that the pupils are to help each other and not necessarily work as isolated individuals as is the predominant philosophy of the Hillside class.

3. The freedom which the pupils in the Higher Levels class enjoy, for example, moving from their seats and talking to each other, in contrast to the relatively rigid rules imposed on the pupils at the Hillside class. These rigid rules keep the pupils in their seats and prevent them from talking to other pupils.

It has also been shown that the dispersion of social positions among the pupils is different for each of the classrooms observed. There are indeed many disparities in these urban classrooms, many of which ultimately seem to be related to the economic status of the segment of the community in which the school is located.

REFERENCES

Becker, Howard S. "Social-Class Variations in the Teacher-Pupil Relationship." Journal of Educational Sociology 25: 451-465, April 1952. 12 p.

Conant, James B. Slums and Suburbs. New York: McGraw-Hill,1961.

Jackson, Philip W. Life in Classrooms. New York: Holt, Rinehart and Winston, 1968.

Jacobi, Fern H. "Changing Pupils in a Changing School." Educational Leadership 17: 283-287, February 1960.

Martin, Wilfred B. W. The Preservation of Self-Esteem: A Study in Role Distance. Memorial University of Newfoundland: Unpublished M.A. dissertation, 1970.

Mayer, Martin. "The Good Slum Schools." *Harper's Magazine* 222: 46-52, April 1961.

Pineo, Peter C., and John Porter. "Occupational Prestige in Canada." *The Canadian Review of Sociology and Anthropology* 4: 24-41, February 1967

Riessman, Frank. *The Culturally Deprived Child*. New York: Harper and Row, 1962.

Stebbins, Robert A. "Role Distance, Role Distance Behaviour and Jazz Musicians." *The British Journal of Sociology* 20: 406-415, December 1969.

CHAPTER III

LEARNING DISABILITIES

by

Marie J. O'Neill

As Silberberg and Silberberg (1969) point out in their article: "No one definition of learning disability exists." The definitions most commonly accepted by educators and others have come from the various Task Force reports supported by the U.S. Department of Health, Education and Welfare (Clements, 1966; Chalfant and Schefferlin, 1969). Myklebust's (1968) definition is in basic agreement with these. Unfortunately, the descriptions usually demand that the child demonstrate a two year lag in academic skills before he is recognized and (sometimes) offered help for his problem. The assumption is that the child has attended school with fair regularity, has had adequate teaching for two years, and has still not learned (Kirk, 1971). This is some assumption. Also, as Keogh (1971) remarks: "...failure is viewed as the responsibility of the child, rather than as an interaction between child and setting".

The articles included in this section take up some of the problems involved in the question of definition, assessment, and responsibility. Lovitt (1967) argues, for example, that problems of definition have occupied far too much time and space, and that more effort needs to be directed towards methods of assessment.

Heavy emphasis on definition has certainly added to the confusion in the area, as well as contributing to the neglect of other aspects. Where, for instance, does this type of definition leave room for consideration of the younger child? What of the need for early identification and prevention?

Stress on definition also tends to lead to labelling. Terms such as brain damage, cerebral dysfunction, perceptual impairment, specific learning disability, are used to describe children with a learning disorder. Some of these are unfortunate terms because they appear to preclude treatment. "Deficit" and "damage" are objectionable, because they imply that the condition is not reversible or may not be treated. Apart from this objection, the argument that neurological dysfunction and/or brain damage are correlated with learning disability has been well answered by Birch (1964). Very simply, not all brain damaged children are disabled. Birch has explained that there is no homogeneous population of "the brain damaged" resulting in "a similar kind of disordered behavior" on their part, as believed by Strauss and Lehtinen (1947) and later by Cruickshank (1966).

Adelman (1970) and Zach and Kaufman (1972) also point out that such labelling leads to a denial of the notion of individual differences, whereas initially concern for the exceptional child evolved from just this concept. Fine (1970) agrees with Lovitt (1967) when he suggests that professionals might use behavioral descriptions in their communications, and "play down" diagnostic labelling. This would permit developments in the areas suggested by Lovitt (1967) of progressive assessment by teachers, and would possibly further the cause of teacher effectiveness as described in this selection by Rappaport and McNary (1970). Hopefully, the notion of shared responsibility might be encouraged as one offshoot *of the involvement of educational researchers, teachers and other personnel in their efforts to comprehend the child "as a totality in learning situations and as a dynamic, developing organism" (Rappaport and McNary, 1970).*

REFERENCES

Adelman, H. S. Graduate training in the "speciality" of learning disabilities: some thoughts. Journal of Learning Disabilities, 1970, 3, 66-72.

Birch, H. (ed.). Brain damage in children: the biological and social aspects. Baltimore: Williams & Wilkins, 1964.

Chalfant, J. C. & Scheffelin, M. A. Central processing dysfunctions in children; a review of research. Bethesda: U. S. Department of Health, Education and Welfare, 1969.

Clements, S. D. Minimal brain dysfunction in children. Phase one of a three-phase project. N.I.N.D.S. Monograph No. 3. U.S. Department of Health, Education and Welfare, 1966.

Cruickshank, W. M. The Teacher of brain-injured children. Syracuse: Syracuse University Press, 1966.

Fine, M. J. Considerations in educating children with cerebral dysfunction. Journal of Learning Disabilities, 1970,3, (3).

Glavin, J. P. Persistence of behavior disorders in children. Exceptional Children, 1972, 38, 367-376

Keogh, Barbara. Early identification. Journal of Special Education, 1971, 4, (3).

Kirk, S. A. & Kirk, W. D. Psycholinguistic learning disabilities diagnosis and remediation. Urbana, Ill. : University of Illinois Press, 1967.

Lovitt, T. C. Assessment of children with learning disabilities. Exceptional Children, 1971, 34, (4), 233-239

Myklebust, H. Learning disabilities: definition and overview. In Myklebust, H. (Ed.). Progress in learning disabilities, 1968, 1, N.Y.: Grune & Stratton.

Rappaport, S. R. & McNary, S. R. Teacher effectiveness for children with learning disorders. Journal of Learning Disorders, 1970, 3, 15-23.

Silberberg, N. E. & Silberberg, M. C. Myths in remedial education. Journal of Learning Disabilities, 1969, 2, 34-42

Strauss, A. A. & Lehtinen, L. E. Psychopathology and education of the brain-injured child, 1947, 1, New York: Grune & Stratton.

Zach, L. & Kaufman, J. How adequate is the concept of perceptual deficit for education? Journal of Learning Disabilities, 1972, 5, (6), 351-356.

ASSESSMENT OF CHILDREN WITH LEARNING DISABILITIES

Thomas C. Lovitt

Abstract: A behavioral method for the evaluation of children with learning disabilities is outlined within a four point assessment procedure: (a) baseline assessment, (b) assessment of behavioral components, (c) assessment based on referral, and (d) generalization of assessment. It is suggested that the reporting of behavioral information in a reliable, valid, and functional manner is of crucial importance. Only when assessment and subsequent remediation are based on direct and continuous observation of observable behavior can pupil and/or programing efficiency be accurately and immediately measured.

A review of the literature on learning disabilities strongly suggests that there is no need for another psychological or medical definition of that population whose achievement does not coincide with its assumed potential. Already there has been as much time expended in attempts to delineate this learning disabilities population as has been spent in its actual diagnosis and treatment. Rather, then, a review of this literature suggests the need for a rationale and a method of evaluation based on a thorough behavioral assessment of individual performance.

Recent concern with learning disorders has prompted not only the publication of books devoted specifically to the diagnosis and remediation of such problems (Hellmuth, 1965; Frierson and Barbe, 1967), but also has stimulated an allocation of government funds for the training of professionals in this field. Further, a number of diagnostic centers has been established for the evaluation of children with minimal brain injury or learning disorders.

Characteristically, a diagnosis at these centers involves the formal administration of standardized educational and psychological test batteries, usually including the Illinois Test of Psycholinguistic Abilities (ITPA), the Parsons Language Sample, the Detroit Tests of Learning Aptitude, the Wepman Auditory Discrimination Test, and reading measures such as the Syracuse Informal Reading Inventory, the Gates, or the Durrell Diagnostic Tests. Following the administration of these tests, portions of which may correlate with the reason for referral, a summary report is presented to the teacher. The tacit assumption behind this diagnostic procedure is that the classroom teacher will be able to translate these evaluations and recommendations into effective programing.

The teacher or referring agent receives (a) such statements as those based upon the ITPA, which reveal the child's auditory decoding and vocal encoding abilities; (b) such data as that obtained from the Parsons Language Sample, which are relevant to his manding, tacting, and intraverbal behaviors; and (c) further comments as to his auditory discrimination, oral reading, comprehension, and phonic abilities. However, these statements are at least one step removed from the direct programing tasks of the referring agent.

For example, there is a teacher who refers a child with an observed deficiency in describing specific objects within the classroom. This teacher will be unable to design a remediation program from a diagnostic report which merely states that, in comparision with someone of his age, the referred child scores poorly on a vocal encoding subtest. This subtest would only be helpful to the teacher were the child referred because of a vocal encoding deficit. Further confusion can result when a teacher actually misuses the indirect information. A teacher, for example, might seek diagnostic solace as a means of rationalizing her own programing inadequacies. Such a teacher, when finding a child who does not adapt to her program or choice of curricular materials, could have her programing decisions greatly reinforced by a diagnostician who solves her dilemma with a report that the child is dyslexic or aphasic. As a result, when the child does not adequately perform, the teacher need only draw out her file and read the diagnosis to reassure herself that the student's poor performance is unalterably determined by some medical or psychological malady. Then, no teaching obligation follows for altering the stimulus or consequence conditions of the program, nor is there any necessity for an assessment of possible errors within the teacher's management techniques.

These difficulties suggest the need for a four point diagnostic procedure based on a methodological assessment rather than an assessment superimposing a set of population characteristics on an individual child. This four point procedure is outlined as follows: (a) baseline assessment, (b) assessment of behavioral components, (c) assessment based on referral, and (d) generalization of assessment. In this manner, it is judged, more children displaying discrepant behaviors will be served, for when diagnosis and treatment are based on direct observations and not on the supposition that one deviant behavior presupposes the presence of a syndrome of related events, time is spent in treatment of explicit behaviors rather than in what is frequently a fruitless search for correlate but often unrevealed behaviors.

BASELINE ASSESSMENT

The proposed diagnostic procedure is initiated by continuously assessing behavior over a period of time, until a specified level of stability has been obtained. This continuous diagnosis is certainly more reliable than traditional diagnostic procedures that represent a single evaluation of behavior or, at most, two samplings of behavior in the pre-posttest paradigm.

In the case where only one or two measures of the behavior are obtained, not only is minimal data acquired, but the total range of variability remains undetected. This minimal evaluative information is often misleading when the objective of a diagnosis is to make a probability statement in regard to the child's future performance. In instances during evaluation when the individual's behavior is under weak or undetected stimulus control, his performance may be extremely variable. The subject, for example, may perform at a very slow rate one day and quite rapidly on another. If only before and after treatment impressions of performance are obtained, the diagnostician cannot be certain if the behavioral change is due to treatment modification or if it is merely fluctuation due to variability.

The diagnostician is concerned not only with the reliability of baseline performance, but also with the validity of his evaluation. In behavioral diagnoses, a valid measure of performance is provided through objective observations of behavior (for example, direct analysis of reading or attention span) rather than subjective inferences of behavior (indirect assessment through the use of standardized tests). Validity, then, obtained from direct measurements that can exactly match recorded observations to those the evaluator will subsequently modify, is assuredly greater than that derived from the indirect sampling of standardized tests that only infer future performance.

ASSESSMENT OF BEHAVIORAL COMPONENTS

The second aspect of the proposed evaluation process is the assessment of those behavioral components that maintain and modify behavior such as stimulus or antecedent events, behavioral movements or responses, the contingency system or arrangement of events, and the consequences provided contingent upon a specified behavior (Lindsley, 1964).

Antecedent or Stimulus Events. Until recently, most educational researchers have focused on the antecedents of behavior - the stimulus materials presented to children. Their experimental efforts can be seen in the vast amount of research that contrasts the efficiency of one curricular method with another. Although such research provides data meaningful for large groups of children, it does not meaningfully measure the effects of various curricular procedures on individuals. It is suggested that the current high level of concern over individual differences should also extend to an assessment of the effects of the programing of materials on individual performance.

It is quite possible that stimulus or curricular research, with regard to children with learning disabilities, will need to evaluate more discrete aspects of the stimulus process than a mere assessment of various texts, workbooks, slides, or filmstrips. For example, to accelerate or maintain the response behaviors of some children, it may be necessary to analyze experimentally individual preferences for several stimulus dimensions. Many of these preferences can be obtained in a free operant situation for example, the child selects his preferred rate of visual or aural narration, the intensity or brightness of the aural or visual theme, and/or the configuration or size of the visual stimulus.

Stimulus preferences relevant to the preferred rate of listening are already the object of some research consideration (Lovitt, 1966). By continuously listening to a story, at five varying word per minute (WPM) rates, retarded and normal subjects were able to select their preferred speed of speech. The results of this investigation revealed that, for most boys, a rather discrete preference for a particular narrative rate did exist. Most normal boys operated to acquire, and verbalized a preference for, speech at normal rates, while all of the retarded subjects in the study rejected the normal 180 WPM rate. Furthermore, they verbalized perferences that were often inconsistent with their operant selections.

A second investigation (Lovitt, 1967a) to assess stimulus perference for the type of person reading a story has recently been completed. Seven preteenage boys from regular and special classes were assessed as to preference for a male or female reader by allowing each boy to listen stimultaneously to two recorded versions of a story, one read by a female and the other by a male. In both conditions the story was the same and the WPM rate of speech was nearly identical. Both stories were available throughout the experimental conditions and the boys were provided with a manual device that allowed them to select continuously one reader over the other and to sample portions of both recorded tapes. The results of this study revealed that five of the boys preferred the male reader and one preferred the female reader. One boy's performance indicated that, for him, the reinforcing effects of both readers were nearly the same.

Thus, a programer, supplied with such individually relevant data as preferred rate of narration or preferred type of reader, could design programs based on these or other stimulus dimensions, such as preference of rate and size of visual presentation or timbre and intensity of auditory delivery.

Movement or Response Behaviors. The response behavior of the child with learning disabilities is a second behavioral component that should be assessed. His responses need to be evaluated in regard to both topography (the counting or quantification of responses) and function (the effect of these responses on the environment).

Literature in learning disabilities is abundant in regard to such topographic parameters of language as mean sentence length, type-token ratios, psycholinguistic processes, and manding and tacting behaviors (Spradlin, 1963). Other dimensions that could be assessed include speaking rate, timbre of speech, and intensity of speech.

However, as Ferster (1967) has pointed out, topographic analysis is a static measure, while a functional analysis is dynamic. Although a topographic record may be as objective and as easily reproduced as any other datum, it lacks the functional or dynamic relation of the behavior to its controlling environment.

In order to obtain this functional analysis of verbal behavior, it is necessary to assess the many verbal situations in which the deviate or disabled child functions and to determine how often, how long, and by what type of speech the child maintains interpersonal communicative acts. It is necessary also to observe how often he emits vocalizations classified as demands or commands, and the frequency with which these mands are consequated or reinforced.

If modification procedures are based only on such topographic measures as mean sentence length or speech rate, an individual's effect (function) on his environment could remain unchanged. However, by observing behavior within a specific setting and by altering certain topographic elements coincident with this analysis, functional changes may occur. For example, in a situational analysis of language it may be determined that when an individual speaks faster and uses longer sentences he is able to maintain a communicative act longer than when he speaks more slowly and uses shorter phrases. In this instance, if the goal requires longer communicative interactions, procedures would be arranged to modify the person's rate and duration of speech. Only by altering the individual's responses according to such a two dimensional evaluation, which contains sentence length and duration of interpersonal communicative contact, may a functional change be achieved.

Arrangement or Contingency System. The third behavioral component that should be evaluated and assessed is the temporal arrangement of the consequences of behavior. It is necessary to determine how often or how many consequences are necessary to affect performance. Many normal children seem to function with few spuriously dispensed consequences. Most children fulfill teacher expectations even though the consequences of child behaviors are delivered at irregular and extended intervals. However these same lean and unsystematic contingencies that maintain acceptable response rates in normal children may be either too subtle or too infrequent to evoke similar behaviors in some exceptional children. Thus, the child described as having an attention span deviation may functionally have a contingency deficit.

Kunzelmann, Aronin, Hulten, and Nolen (1967), at the Experimental Education Unit of the University of Washington, have designed an observation system that should provide data relevant to the contingency requirements of children. By recording the rate of teacher interactions with individual children and by simultaneously plotting pupil performance rate, data should be obtained relevant to pupil performance as a function of teacher interaction. Data from such a system would enable a classroom teacher to arrange the rate of her interactions to promote optimal pupil response rate. The maintenance of high rates of performance for some children may require few systematically spaced interactions. However, for pupils with contingency deficits, high response rates may be produced only by a high rate of teacher interaction.

Subsequent or Consequent Events. The final behavioral component for measurement and evaluation is the assessment of environmental consequences that maintain behavior. It is necessary to identify an individual's hierarchy of consequences, those events that either increase or decrease his rate of performance. These consequences should be selected so that they coincide with those available in the individual's home or school, and, whenever possible, they should take the form of the complex social consequences that will eventually control the child's behavior in most settings.

Generally there has been more success in determining what these high payoff activities are by observing the child or by asking the child's teacher or his parent, rather than asking the child himself. Parents and teachers are in immediate and close contact with the child many hours each day. They are aware of the child's free time preferences - whether he watches television, builds models, rides his bike, colors in a book, or reads science fiction. These frequently occurring self initiated activities could be used later by the diagnostician or programer as initial consequences when remediation programs are inaugurated.

The reliability of observation and interview techniques in determining potential reinforcers for children has recently been experimentally analyzed. Haughton (1967) asked teachers, peers, and the children themselves which events or commodities they believed would affect pupil performance. Children were also observed in free time situations, in order to obtain data relevant to potential reinforcers. The suggested and observed events were then used as consequences in an academic setting to determine their relative function on pupil performance. Haughton reported that although some teachers were accurate in predicting which events could be used to increase academic response rate of children, the most reliable information was that data obtained by actually observing the child.

Many instances, however, will arise that require the use of consequences not ordinarily available in a classroom setting, such as tokens, marks, or the classic use of candy, M&M's (Haring and Lovitt, 1967). With some children it may even be necessary to explore the use of continuous narration (such as stories or music) as a potential controlling consequence. It could be that such continuously available narration will generate higher rates of response from those individuals than will bursts or episodes of reinforcement, such as tokens, marks, or social contacts.

Another approach is the method of conjugate assessment, which requires that the child be placed in an enclosed room and told that he will be listening to or looking at something and that he can press the provided hand switch if he so desires. Without further instructions, the child usually realizes that by pressing or not pressing the switch he can continuously select the narration of his choice. Since many children with learning disabilities possess limited verbal repertoires, this free operant technique, which requires minimal verbalization from the examiner and none from the child, obtains a more reliable assessment than those requiring a verbal report from the child.

The conjugate tactic has been used to compare the continuous reinforcing strengths of five types of narration (Lovitt, 1967b) and to compare the relative reinforcing strengths of two stories (Lovitt, 1967c). In the first investigation, when a story, a poem, words and sentences in reverse order, and a journal article were serially presented, it was observed that young children responded at stable rates to acquire the story, but they demonstrated great response variability when the other narrations were programed. Some exceptional children, however, responded at more stable rates to acquire words or sentences in reverse order than they did for the story, a narrative form that was conceivably understood or meaningful.

In the second investigation (Lovitt, 1967c) of the comparative strengths of consequences, two stories were offered simultaneously rather than serially. The data from this study not only revealed each subject's quantitative preference for a story, but also provided a continuous, moment to moment analysis of the holding power of each story.

ASSESSMENT BASED ON REFERRAL

The third factor which must be considered in this recommended evaluation process is the referring agent - the teacher or parent - as well as the referred child. The possibility always exists that the managerial and programing skills of the adult may be as incompetent as the compliance skills of the child. In other words, there are those educators and psychologists who, given an option as to program types, would select the program for adults with programing disabilities rather than one for children with learning disabilities. In some cases, it is expedient for the diagnostician to deal directly with the programing disability of the adult rather than with the performing disability of the child.

Involving a parent or teacher in the evaluation process enables the referring agent to collaborate with the diagnostician on the determination of target behaviors specified for subsequent treatment. It would not be uncommon to find a child referred and diagnosed because of poor performance in oral and silent reading, inadequate mathematics computation, and other discrepant activities such as tantrums or social isolate behavior. In this case the deviant behaviors need to be ranked by priority - a rank order not necessarily in accord with the diagnostician's treatment sequence. Such a decision should be mutually agreed upon by the diagnostician and referring agent.

Although the diagnostician sometimes runs the risk of reinforcing the referring agent's poor judgment and analysis by allowing her to play a role in deciding the future course of educational treatment and modification, there are indications that a breakdown in programing results from the failure to take the referring agent's goals into account. On some occasions, when a disagreement in terminal goals results in dual programing, either the child becomes adept at discerning inconsistent environment expectations or his behavior collapses completely. On other occasions, a parent may verbalize agreement but fail to carry out any modification procedures as outlined by the diagnostician. For the optimal programing sequence, then, a coincidence of goals held by the adults must be actively pursued.

GENERALIZATION OF ASSESSMENT

The fourth aspect of the proposed method of assessment is to emphasize the generalization of diagnostic information. The end product of an evaluation should be to present to the referring agent information that can be immediately transmitted into programing procedures. The teacher, when provided with diagnostic information from the clinician, should be in a position to provide a stable learning environment for the referred child.

One reason for the fact that diagnostic information has not been translated into academic programs has been discussed earlier, namely that teachers have not always been able to design functional teaching programs and procedures from the data derived from standardized tests and the accompanying clinical jargon. A second reason that clinical evaluations fail to result in functional academic programs may be that the environmental conditions that prevailed during evaluation were not specified to the teacher. It is as important to report the process that was in operation during an evaluation as it is to report the product of an assessment. An evaluation report that simply states the child's rate of response on certain materials would be a topographic analysis. However, an assessment report that not only describes the child's performance rate, but details the environmental contingencies that were in effect during assessment, would be a functional analysis. The probablity of successfully generalizing a remediation program is far greater when functional data are provided than when only topographic information is reported.

Attempts are being made at the Experimental Education Unit and Division of Child Health of the University of Washington to report diagnostic data to teachers in a functional manner (Lovitt and Kidder, in press). Data are reported which are relevant to each of the following: the antecedent prompts or instructions given during the evaluation, the exact material that was given the performer, the subsequent events that followed the child's responses, and the child's responses to the various programs. The assessment of explicit academic behaviors and the reporting of prevailing environmental conditions have facilitated diagnostic generalization. Thus, diagnostic generalization can be obtained when data are reported relevant to process and product rather than product alone.

CONCLUSION

The concern throughout this paper has been directed toward assessment. Although treatment or remediation was not the emphasis at this time, this detailed method of objective specification and direct observation of behavior which has actually been established by the teacher or diagnostician represents the first step toward successful modification.

The utilization of direct behavioral assessment as an initial step toward future teaching plans carries with it both optimism and a high degree of responsibility. Optimism is implied in that the discovery within a detailed behavioral analysis of those conditions that alter or maintain behavior may lead to the alterations of many deviant behaviors. There is no need to seek a validation of the referred behavior from some indirect or irrelevant standardized test. Furthermore, there is no need to probe for hidden behaviors that are often suspiciously believed to be correlated with the referred behavior. Responsibility is implied in that now the remediational obligation rests with the programer. For when remediation procedures are initiated and accordingly measured in a direct manner but resulting pupil responses are unacceptable, it is indicated that the variables in a teaching situation have not been appropriately arranged. Therefore, the ultimate successes and failures of the proposed assessment and modification method are always subject to immediate and accurate observation. By direct assessment of such behaviors as rates of reading, computation, or listening and speaking, and by the application of modification procedures functionally related to these skills, pupil and/or programer progress is discerned immediately and empirically.

REFERENCES

Ferster, C. B. Classification of behavioral pathology. In L. Krasner and L. Ullmann (Editors), *Research in behavior modification,* New York. Holt, Rinehart and Winston, 1967 Pp. 6-26.

Frierson, E. C., and Barbe, W.B. (Editors) *Educating children with learning disabilities; selected readings.* New York: Appleton-Century-Crofts, 1967.

Haring, N. G., and Lovitt, T.C. Operant methodology and educational technology in special education. In N.G. Haring and R. L. Schiefelbush (Editors), *Methods in special education.* New York: McGraw-Hill, 1967. Pp. 12-48.

Haughton, E. A practical way of individually tailoring classroom consequences. Unpublished doctoral dissertation, University of Kansas, 1967.

Hellmuth, J. (Editor) *Learning Disorders.* Vol. 1. Seattle, Washington: Special Child Publications, 1965,

Kunzelmann, H. Aronin, Marilyn, Hulten, W., and Nolen, Patricia. Simultaneous cumulative observation record for interaction analysis. Unpublished manuscript, University of Washington, 1967.

Lindsley, O. R. Direct measurement and prosthesis of retarded behavior. *Journal of Education,* 1964, 147, 62-81.

Lovitt, T. C. Narrative rate preference of normal and retarded males as assessed by conjugate reinforcement. Unpublished doctoral dissertation, University of Kansas, 1966.

Lovitt, T. C. Reader preference: a free-operant assessment. Unpublished manuscript. University of Washington, 1967. (a)

Lovitt, T. C. Use of conjugate reinforcement to evaluate the relative reinforcing effects of various narrative forms. *Journal of Experimental Child Psychology*, 1967,5, 164-171 (b)

Lovitt, T. C. Free-operant preference for one of two stories: a methodological note. Journal of Educational Psychology, 1967, 58, 84-87. (c)

Lovitt, T. C., and Kidder, J. D. Experimental analysis of children with learning disabilities. In R. C. Jones (Editor), Prospectives in contemporary education. New York: Allyn and Bacon, in press.

Spradlin, J. E. Language and communication of mental defectives. In N. R. Ellis (Editor), Handbook of mental deficiency. New York: McGraw-Hill, 1963. PP 512-555.

THOMAS C. LOVITT is Assistant Professor of Education, University of Washington, Seattle, Washington.

TEACHER EFFECTIVENESS
FOR CHILDREN WITH
LEARNING DISORDERS

Sheldon R. Rappaport, Ph.D.
Shirley R. McNary, M.A.
Norristown, Pa.

To be of real help to children with learning disorders, the teacher requires personality attributes, training, and function very different than the archetype. To select a teacher who has the desired personality attributes, to provide the proper training for that teacher, and to afford that teacher the opportunity for optimal success in habilitating those children requires a change in concepts on the part of the university and the public school administrators.

Before discussing the factors that influence how effective the public school teacher is in helping children with learning disorders, it is important to define which of these children can be helped in public schools and under what circumstances. In its present form, public education cannot be expected to help all children who have learning disorders. Even in those public schools that provide special classes, it is not uncommon for children to spend years being shifted from one class to another as each teacher in turn reaches the limits of endurance. In large measure, the degree of disturbance both academically and behaviorally that the public school can ameliorate in special classes depends on such factors as the degree of commitment of the school and community to this child, the training and competency of the teacher, the availability of supportive help to the teacher and the child, and parental awareness and cooperation. Too often such key factors are ignored, and instead solutions are sought by increasing the time available for testing, by hiring teachers with advanced degrees, or by having the children scheduled for rote "motor" work in the gym. Then special education classes can readily be a dumping ground for all misfits drained off from regular classes, with few children profiting from their time in school. For that to happen is indeed unfortunate for the children and for their families, and it is doubly unfortunate because public education then fails in its intended commitment to children who need special education. Being shunted about from class to class without receiving the help necessary to return them to the mainstream of regular education masks their truly special needs and thereby cancels public education's opportunity to provide them with the intended service.

To provide effective habilitative service for children with learning disorders, each school district must realistically assess its functions and organization and from that assessment determine the severity of the problem it can effectively help. Only when that base line is established as an administrative policy and realistically implemented by an appropriate program and personnel is it worthwhile for public education to invest in diagnostic evaluations of the children under consideration for special classes. To spend an appreciable portion of the special education budget on a testing program to identify children who need help, and then not be able to provide them that help is both uneconomical and cruel to those children thus identified.

REQUISITES FOR A THERAPEUTIC APPROACH TO TEACHING

Special education is becoming increasingly aware of the factors involved in the child's ego development. Having taken that step, special educators should be ready to embrace a comprehensive child-development philosophy of education. In general, the development of perceptual, movement, attentional, and cognitive skills can be visualized as an integral aspect of the child's ego development (Rappaport 1961, 1964, and 1969). When mobility, perception, or any other preacademic skill is deficient, the child is deprived of the pleasure of functioning successfully and of being able to master newly emerging functions. As a result, there is interference with the natural growth of an early and integral sense of self-esteem. Such inadequate primary ego skills, plus the resultant inadequate concept of self, further interferes with the growth of the higher ego skills. Higher ego skills such as impulse control, reality testing, and respect for the rights of others supply the ego with its ability to maintain relative autonomy - that is, an adaptive balance in response to inner drives and to the outside world. Therefore, a child who does not have sufficiently adequate skills to provide him with the ego development appropriate for his age does not have the intactness of the functional systems necessary for effective learning to take palce. Thus, it should be expected that he would have difficulty in acquiring and integrating academic skills.

Because so much of the child's life centers on school, as he grows older his self-esteem regarding school adequacy is more vulnerable than is his self-esteem in other areas (Morse, 1964). Therefore, academic difficulty or failure, in turn, can be expected to interfere further with the child's development of a healthy ego. As a result, there is growing conviction that the child's ego growth cannot be divorced from his academic growth as though these emerged from separate, unrelated wellsprings of the child's mind.

Teachers of children with learning disorders know from experience how much a child's emotional blowups or other maladaptive attempts to cope with learning situations can interfere with academic progress. Frequently the child's academic progress is contingent upon how well such blowups are handled (Redl, 1966). Even when the child has psychotherapy, the psychotherapist works with the child at the best for only a relatively few hours of the week. Moreover, the therapist usually is not available to help the child work through the many blowups that occur within the classroom. Therefore, whether it is formally acknowledged or not, in public education the teacher plays the major role in the habilitation of children with learning disorders.

To fulfill that role appropriately, the teacher needs not only the conventional training and facility in knowledge of child development and teaching methods, but also an understanding of how to "read" the child's behavioral responses in the classroom, how to relate such responses to his level of development, and how to program for him in a way that will foster his ego growth. To accomplish that the teacher needs proficiency in accurately observing the child's performance and in understanding how the child's problems affect that performance from the standpoint of the interrelationship of his input, integrative, and output functions in any given learning situation (Rappaport, 1969). Only then can the teacher be expected to provide efficient educational programming for the child. Although all teachers should have these skills, a high degree of proficiency in them is mandatory for the teacher of children with learning disorders.

From a developmental standpoint, the teacher is concerned not only with the influence of the child's skill deficiencies on academic learning, but also with the influence of such deficiencies on the development of preacademic skills and their influences in turn, on academic learning. For the teacher to be aware of and to respond to the child as a totality requires knowledge not only of the skill areas or deficiencies of the child, but also knowledge of his inextricably related stage of ego development and of how he has maladaptively tried to cope with his deficiencies through the years.

To assist in the development of the whole child is a stressful obligation. Therefore, from an administrative standpoint, the school's organization should be designed to provide the teacher with backup support by a psychotherapist, a parent counselor, a physician, a nurse, and educational specialists (such as in the area of reading, adaptive physical education,etc.) When the teacher does not have the necessary backup support, and, as is too often the case, when additionally the teacher does not have facility with the required teaching skills, he or she can be expected to be overwhelmed with classroom chaos and personal stress. Under such conditions, the teacher can be expected not to foster the child's growth, but instead to undermine it, or at best to perform a holding action.

In brief, the two major factors involved in backup support are: (1) the teacher's comfort in the role of teacher and in the mastery of the requisite techniques, and (2) ample time for team communications that is built into the everyday schedule. When these two factors are present, communication time can be spent focusing on expected problems that arise daily and on pooling information and observations toward solving those problems. Thus the teacher's anxieties and self-doubts can be allayed before reaching crippling proportions.

RELATIONSHIPS OF TEACHER TO THE TEAM

Most public schools do not have on their staff full-time psychotherapists, parent counselors, and other specialists. However most schools do have full-time nurses, psychologists, and reading, speech, and physical-education specialists. By administratively changing the roles of these support personnel and by giving them preservice training for their new roles, these specialists can provide immeasurably more meaningful support to the teacher than they are now doing - without increasing the cost of special education. For example, the psychologist can become proficient in helping the teacher with behavioral difficulties in the class and in supplying parent counseling, rather than grinding out tests that serve little purpose except to consume file space and that have little applicability to the child's educational program. In turn, the nurse can be of assistance in auditory, visual, and motoric training, and in serving as liaison to community specialists from whom the children require help. In the latter function the nurse not only can provide needed information to the specialists - information that is based both on the nurse's and the teacher's observations - but can also help the teacher to understand the kinds of information the specialist needs in order to be of optimal help to the child. In some school districts the nurse has also successfully served as a "crisis teacher" being available to work individually with youngsters who become upset while in class.

In addition to whatever team can be mustered within the school system's existing personnel, many times additional team members can be drawn from the community. When such specialists are hired by the school district on a part-time basis, they should have ample opportunity to meet with the full-time team members to learn how to communicate effectively with each other, to gain a basic understanding of the school's goals and problems, and to set up a regular schedule for meeting. In that way a school district has access to a full complement of expert help that would be too expensive for any one school. Once the part-time team members learn the goals and problems and how to communicate among themselves and with school personnel, they can be called into any school within the district as needed to help with problems existing there.

Between visits from the part-time team members, the full-time team members require regularly scehduled time for communication. This can be accomplished in a 45-minute period prior to the beginning of class or during an equal period of time after class. Most school administrators find that inaugurating such conference time on a daily basis is not a waste of time in the long run but facilitates a smoothly-functioning program and therefore saves time and money. The teachers, in turn, find that the extra 45 minutes a day are important to their effectiveness and comfort with the children and are well worth while.

The daily conference time can be used to prevent or handle a crisis. Recommendations made are followed up at a later conference. The daily conference can also be used for review, with all team members expected to review each child systematically at least twice each year to insure that no aspect of the child is overlooked. Twice a month the daily conference can be used to enable the psychotherapist to help the teachers feel more comfortable within themselves in dealing with the problems of the children, to know their own assets and liabilities in connection with the children, and to facilitate their use of supportive help from other team members.

Through the daily meetings, which consume three and three-quarter hours per week, a more effective and concerted program of help for the children can be developed than could be possible without such communication time being built into the schedule. Those few hours a week, devoted to team communication and focused on the child as a totality, can be the ingredient pivotal to whether or not the program achieves its desired quality and accomplishments.

For the team to provide appropriate support to the teacher, each member of the team must, first of all, understand his role in the therapeutic effort and where this fits into the organization of the team. Secondly, each team member needs a comprehensive awareness of the classroom situation in which the children are involved. Frequently the purpose of the team miscarries because the psychotherapist, for example, sees the child only from the standpoint of individual contacts, without recognizing that the teacher copes with the child not only individually but also as a member of the group. Thirdly, each member of the team needs the opportunity to be thoroughly conversant with the goals and ideologies of special education. It is not uncommon for a part-time team member to be unaware of such goals and philosophies, thereby working at cross purposes with them and not supplying the necessary support to the teacher. Fourthly, all members of the team need sufficient time built into the everyday schedule to feel comfortable with each other first as people and then as co-workers in a cooperative venture in which each volitionally gives up a certain portion of autonomy in order to gain the benefits of shared responsibility and endeavor for the child'd development.

Depending on the nature of the problem under discussion, an immediate course of action is suggested by one or another of the team members. Because responsibility for the program is vested in the school principal or supervisor, that person decides which course of action should be followed. Then, even though everyone may not have agreed with the decision, instrumenting the plan without undermining it becomes the responsibility of all team members. Equally the responsibility of all is to evaluate the efficacy of the course of action after observing its effect for an appropriate period of time and discussing those observations in a followup meeting. When the team is composed of persons who are secure in their personal status, in their professional skills, and in their shared responsibilities, they can readily accept suggestions made by the person best equipped to "quarterback" the solution to a particular problem. The principal or special education supervisor also has the responsibility to see that the plan is indeed implemented.

TEACHER SELECTION

Teachers draw their heritage from the stereotype of an authoritarian person who is to impart information that the students are expected to absorb, often without the luxury of integration and almost always with no allowable emotional response save enthusiasm. Comprehension of the child as a totality in learning situations and as a dynamic, developing organism is beyond the ken of such a stereotype. Obviously, that stereotype will not habilitate children with learning disorders. Conversely, the teacher being sought for these children is one who has true self-respect, maturity, proper sensitivity, a well-integrated identity, and abundant frustration tolerance (Cruickshank, 1966, p. 314).

Although such attributes are mandatory for teachers of children with learning disorders, it is recognized that as the field of education in general is being stretched into new dimensions, these basic attributes are increasingly regarded as prerequisite for all good teachers.

Rabinow (1964) supplies an excellent statement of attributes required by teachers. One of his main points is that successful teachers of special classes do not emerge from one single type of collegiate training. Instead the key to the teacher's success is his underlying personality. He indicates that an attribute of major importance for the successful teacher is "...the ability to work productively, without dogmatism or disorganization, despite present uncertainties" (p. 30). Rabinow also states (pp. 35-39) that the teacher can be trained both in specific techniques and skills, and also to use himself and his own behavior to aid the children's growth.

Other criteria for teacher selection are cited by Cruickshank, Junkala, and Paul (1968): (1) successful in small group instruction; (2) skilled one-to-one teaching situations; (3) much patience; (4) experimental point of view and willingness to try new methods; (5) acceptance of slow progress of children; (6) able to establish warm relationships between self and children; (7) comfortable in a structured teaching situation; (8) verbal to the point where he or she can maintain strong relationships with representatives of related disciplines.

Whether recruitment is for teachers of regular or special classes, it is apparent that as yet no one has found the royal road. Nevertheless, programs for children with learning disorders cannot be optimally effective unless school administrators employ the already-identified criteria for selecting teachers for these classes. And to do that administrators need the support of the School Board and of the community, both of whom must understand that a "warm body" will not suffice as a teacher for children whose needs are extremely complex.

UNIVERSITY TRAINING

An important aspect of recruitment is the collegiate training received prior to employment. Here again, apparently no collegiate institution provides training that enables a teacher to have all the necessary competencies the first day on the job with children who have learning disorders. Consensus is that collegiate training for such teachers should provide them not only opportunity to develop specific teaching techniques but also specific attitudes. To do this would require substantial change in attitude and approach to training on the part of the collegiate institutions. Rabinow (1964, p. 32) states that fundamental to the needs of specially trained teachers is the need for university teacher-training personnel who have had extensive classroom experience with these children and for public-school supervisors with similar experience. As a solution, he suggests the development of a cadre of teacher trainers and supervisors with "foxhole experience," who would fulfull the role indicated by Conant's designation of "clinical professors of education."

The results of a survey made by Nagle and Gersh (1967) among teachers of emotionally disturbed children and their supervisors are equally applicable to the area of learning disorders. These teachers and supervisors indicated that most lacking in their own training were extensive and intensive opportunities to work directly with disturbed children and to get "how to" pointers from experienced personnel working at the centers where prospective teachers could take their practicum. They felt that exposure to disturbed children should begin in the sophomore year, in a variety of settings, with opportunity for the observations to be interpreted to the students, both from the standpoint of practical techniques and also the working through of the teacher's personal values involved in teaching disturbed children. They further suggested that student teaching in centers for disturbed children should under no circumstances be waived, and that student teaching should be full-time for at least a semester.

Rabinow (1964, p. 40) also advocates meaningful and useful practicum for the teacher in training at the university. He suggests that the most important aspect of special training would be a carefully supervised practicum that would include 400 hours of classroom experience both in a residential and day-school setting, with paced participation in case conferences, individual conferences, and problem-oriented workshops.

Implicit in the aforementioned recommendations is an important change of attitude on the part of the universities. This is succinctly stated by Cruickshank, Junkala, and Paul, (1968, pp. 299-300):

> Keeping research and training functions in the exclusive domain of teachers, supervisors and administrators is a functional distinction that is making less and less sense. If the challenge now facing all special educators is to be met squarely, the innovators, the teachers, the researchers, the administrator and supervisors must find ways of sharing responsibilities for training and education.

Rabinow (1964, p. 31) makes the point equally well:

> The triumvirate of educational service, educational

research, and teacher training should be incorporated in all school programs but is particularly needed if the teaching of disturbed children is to go past its swaddling stage.

It becomes apparent then that classes for children with learning disorders have much to contribute to the collegiate training of teachers. When properly teamed and administered, these classes can provide teachers in training with the diversification and depth of experience they both require and request. Such practicum courses provide the prospective teachers opportunity for direct experience in the areas of: (1) grouping the children to provide them with optimal opportunities for learning; (2) specialized skill-building techniques; (3) helping the child to learn how to manage his own behavior successfully; (4) functioning as a member of a habilitative team. In addition, such practicum offers them the opportunity to gain a first-hand understanding of the roles played by psychotherapy, parent counseling, and various medical and other specialized services in the child's total habilitative program. Moreover, practicum in a residential setting contributes greatly to the teacher's training. Knowing how these children cope with daily situations in a home environment enables the prospective teacher to have a better understanding of what parents must deal with in daily interactions with these children. This should help to bridge the schism too often found between teacher and parents, in which each blames the other for the child's problems or lack of progress.

For such practicum to be most useful to the prospective teacher it must be carefully integrated with the didactic courses concurrently offered to the student. Ideally the content and the details of the practicum and didactic courses should be worked out conjointly by the staffs of the university and the school.

In addition to providing such comprehensive service to the prospective teacher, public schools that have achieved a proficient program for children with learning disorders also can offer similar service in summer workshops: (1) to the veteran regular-class teacher who has been selected to begin a class for these children, and (2) to the experienced teacher of such children who feels the need for being updated and for further stimulation. Such workshops could be administered in conjunction with a university so that these teachers could receive information on the latest theories and research, as well as graduate credit.

INSERVICE TRAINING

Even if all the above recommendations were a reality, which they are not, inservice training of teachers would still be necessary. New teachers would still require opportunity to become familiar with the goals and ideologies of the specific school system in which they came to work, as well as the opportunity to develop working relationships with other staff members. Moreover, even the experienced teacher needs continuous opportunity to focus on problems, share ideas, learn of new techniques, and get a fresh approach to a problem, which cannot come from trying to cope with it all by one's self.

Inservice training, both for the neophyte and for the veteran teacher, ideally should be aimed at furthering meaningful observation of the whole child and at being able to make a critical analysis of what the task presented to him requires of him. Inservice training also should aid in the effective evaluation of the teacher's own emotional response to the child. These goals can be facilitated by training that helps the teacher to see the interrelationship between the child's skill competencies or deficiencies and the child's behavior. This serves to lessen the tendency of the teacher to fragment the child by programming for skill development at one time and emotional development at another. To gain real facility in prescriptive educational programming for the whole child teachers need ongoing opportunities to organize and integrate their understanding of all aspects of the child's functional systems of learning (Rappaport, 1969). Such organization and integration does not result from having a series of experts, no matter how talented and stimulating, lecture to them during an afternoon's inservice. In fact, a series of such lectures often deters integration. Instead, teachers need an opportunity for continuing expert help with the everyday problems presented by their classes. Continuity of help in resolving those problems that are most important to the teacher promotes their understanding and helps them to become effective teachers. In other words, inservice training that is approached from the standpoint of the teachers' frame of reference is much more meaningful and effective than is training approached from the frame of reference of the expert outsider.

It is also helpful for inservice courses to emphasize the experimental attitude and, therefore, the openness needed when teaching these children. As Rabinow (1964, p. 35) stated:

> ...the basic educators of teachers are children, and for the aware teacher the classroom is a perennial source of professional growth - a teaching-learning situation for child and teacher.

TEACHER SUPERVISION

In addition to support from other team members and to the supportive role of inservice training, support of the teacher should come from the principal or supervisor. To make this possible the principal or supervisor cannot be so immersed in administrative detail as to be inacessible to the teachers and their problems. The principal or supervisor needs to spend time in the classroom on a regular basis. Those visits must be built on a rapport that makes them non-threatening. Here again, if the school's pervasive attitude is to recognize the arduous nature of the teacher's job and at all times to offer support, the teacher will feel free to come to the principal with problems and will be comfortable with the latter's visits in the classroom. The correlate of this is that the principal needs to demonstrate arrival at a stage of ego development that surpasses omnipotence: a self-awareness of liabilities as well as assets. That attitude explicitly encourages the teacher to recognize his or her own limitations and to seek help where and when needed. Then the principal has the opportunity to utilize his or her superior experience in helping the teacher to set up and evaluate the day-to-day program in the classroom.

CONCLUSIONS

To work effectively in public school classes for children who have learning disorders requires a breed of teacher different than the archetypal teacher in basic personality attributes, training, and function. This teacher is required to play the major role in the habilitation of these children.

In personality this teacher has a sense of true self-respect, maturity, proper sensitivity to the needs of others, a well-integrated identity, and abundant frustration tolerance.

In attitude this teacher has an experimental viewpoint, is able to work flexibly and productively in a situation that has many uncertainties, can establish warm relationships with children, and at the same time can maintain strong relationships with adults who are both in other disciplines and in administration.

To be properly trained this teacher requires collegiate courses that offer the opportunity to develop a broad understanding of the techniques and attitudes that go into teaching these children, along with a firm comprehension of the developmental aspects of the child's functional systems of learning and of his ego in general. This training should be provided both by an interdisciplinary corps of clinical professors of education, who have firsthand experience with these children, and by working directly with such children, under supervision, for substantial periods of time.

The conjoint efforts of collegiate institutions and special education in public schools could make such training optimally useful to the teacher. Carefully integrated with the didactic courses concurrently offered to the teachers in training, such practicum could provide them with direct experience in observing each child's performance and in analyzing what each task requires of the child, along with experience in classroom techniques, in helping the child to manage his classroom behavior, and in functioning as a member of a habilitative team. In addition, such practicum could offer them a firsthand understanding of the roles played by psychotherapy, parent counseling, and various medical and other specialized services in the child's total habilitative program. Such conjoint efforts could also provide comprehensive service to veteran regular-class teachers selected to begin classes for these children and to experienced special-education teachers who feel the need for further stimulation and for updated knowledge.

In addition to proper collegiate training, this new breed of teacher requires ongoing inservice training. Inservice training is needed first to become familiar with the goals and ideologies in the specific school system in which they come to work and develop working relationships with other staff members. It also provides both the veteran teacher and the neophyte opportunity to share ideas, learn of new techniques, get a fresh approach to daily classroom problems, and further integrate their understanding of how to program prescriptively for each child.

Because the "front-line" nature of the teacher's role places him or her under significantly greater stress than do the roles of most others working with these children, even well-trained and experienced teachers need continuous support both from other team members and from the principal or supervisor. Such support can be a reality only when sufficient time for communication is built into the schedule and only when the prevailing attitude of the school is one of respect for the teacher's role and need for support.

To develop the requisite new breed of teacher will necessitate an enhanced quality of program and interdisciplinary interaction in public schools. It will also necessitate collegiate institutions." bridging the gap between theory and practice by working closely with the schools. For both collegiate institutions and public schools an important outcome would be the cooperative undertaking of training, research, and service. For both that would also mean a new dimension of quality and progress. The prime beneficiaries, of course, would be the children and their families, but education and related disciplines would also profit enormously by the resultant greater understanding of that complexity called learning.

REFERENCES

Cruickshank, W. C.: The Teacher of Brain-Injured Children, New York: Syracuse Univ. Press, 1966.

Cruickshank, W. C. Junkala, J. B., and Paul, J. L.,: The Preparation of Teachers of Brain-Injured Children, New York: Syracuse Univ. Press, 1968.

Morse, W. C.: Self concept in the school setting, Childhood Education, 1964, 41, 195-201

Nagle, R. and Gersh, M: Training Needs of Teachers of Emotionally Disturbed Children, Michigan: Eastern Michigan Univ. Dept. of Education, 1967.

Rabinow, B: The Training and Supervision of Teaching of Emotionally Disturbed Children, New York: University of the State of New York, State Dept. of Education, Bureau of Teacher Education, 1964

Rappaport, S. R. in: Psychoanalytic Study of the Child, Vol.16, pp. 423-450, 1961

Rappaport, S. R.: Childhood Aphasia & Brain Damage: A Definition Vol. 1, Pennsylvania: Livingston Publishing Co., 1964.

Rappaport, S. R.: Public Education for Children with Brain Dysfunction, New York; Syracuse Univ. Press, 1969.

Redl, F.: When We Deal With Children, New York; Free Press, 1966.

HOW ADEQUATE IS THE CONCEPT OF PERCEPTUAL DEFICIT FOR EDUCATION

Lillian Zach, Ph.D.
Judith Kaufman, Ph.D.

This study was prompted by concern as to the validity of current procedures for identifying the perceptually deficient child, for providing him training in perceptual skills and for understanding the concept of perceptual deficiency. Seventy children (41 boys, 29 girls) of kindergarten age from the lower socioeconomic classes were studied. Thirty-five children were administered the Bender Visual Motor Gestalt Test and were then required to perform a discrimination task using these same forms. For the other 35 subjects, these tasks were performed in reverse order. Results showed that performance on one task was not related to performance on the other. It was possible for a child to discriminate forms well and still obtain a score on the Bender which indicated "perceptual" difficulties and vice versa. It would be highly questionable to subject a child, labeled as having perceptual problems, to remedial tasks requiring visual discrimination in the service of perceptual training if, in fact, he can perform this kind of task quite well. The authors discuss both the validity and the educational usefulness of perceptual deficit as a global concept and suggest that labeling of this kind may impede our understanding of the child's problem.

During the past several years, psychologists and educators have become increasingly interested in implementing programs for children whose learning disability has been traced to a "perceptual handicap." As a result, large numbers of remedial programs designed to compensate for this deficit have been gaining recognition (Barsh, 1966; Frostig & Horne, 1964; Kephart, 1965; Radler & Kephart, 1960; Silver, Hagin & Hersh, 1967; Valett, 1969). Although the proposition that perception is a basic requirement for learning is sound, and although training in perceptual skills may help in preparing a child for successful school achievement, several questions about the validity of current procedures are evident. One question relates to how perceptual deficiency in any given child is assessed, another to the relevancy of the remedial programs instituted once these children are identified, and a third to how perceptual deficit is conceptualized etiologically. All three are inter-related and interdependent. The matter of who is included under the label of the perceptually handicapped, for example, is intimately linked not only to the methods employed in identifying these children, but also to how the etiology of their problem is viewed. The answers to these questions are lacking in clarity and there is much confusion in the literature today. Some investigators reserve the term for those children who display perceptual weakness because of a psychoneurological dysfunction (Barbe, 1967; Johnson & Myklebust, 1967). Others are less precise but seem to include all children of normal intelligence who display trouble in those aspects of school learning requiring perceptual skills. This is especially so for the children in preschools and primary grades (Frostig, 1968; Valett, 1969). Further, although one finds general agreement in defining perception as an information-processing system whereby input from the senses is translated into knowledge, more often the definition is operationally determined by the instruments used to assess it.

Two investigators, both talking about perception, may in fact, be measuring different things.

Recognizing the need for clarity concerning the measurement, etiology, and subsequent remediation of perceptual problems in school age children, we undertook an earlier investigation using the Bender Visual Motor Gestalt Test (Zach and Kaufman, 1969). Perceptual scores, determined by the Koppitz Scale (1964), demonstrated that black kindergarten children were poorer in visual-motor performance than white kindergartners. However, a second administration of the same test three weeks later eliminated initial differences between these groups. The study showed that drawing a conclusion of perceptual-motor lag for many poor black children could be premature, and suggested that "test-taking" experience was a critical factor in the poor visual-motor performance of many lower class children. Qualitative analysis of the children's performance led us to further question the usefulness of a global concept such as perceptual deficit. Abercrombie (1964) had demonstrated that cerebral palsied children were able to copy a diamond when permitted to use a ruler, although initally they could not reproduce the figure without this assist. A diagnosis indicating a deficit in perception based upon the first condition would obviously be characterizing the abilities of these children incorrectly. To rely on a global concept of perception, therefore, not only distorts a description of the deficit, but also may lead to an inappropriate remedial training program.

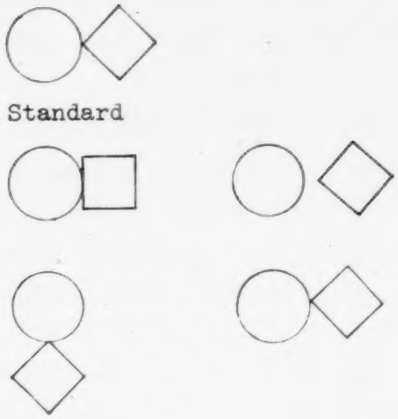
The present study was designed to determine what factors may be responsible for successful performance on a test that is popularly used in the diagnosis of perceptual deficit. A task such as the Bender Visual Motor Gestalt test, like so many instruments of its kind, requires the child to copy simple geometric forms. Many skills are obviously involved. Does the child who fails the task do so because he lacks the motor development for copying it, because he cannot discriminate the form, or because he is unable to integrate these two responses? It was hoped that this study would provide information concerning the last two questions.

METHOD

Subjects: The subjects were 70 children attending kindergarten in a New York City public school. There were 41 boys and 29 girls ranging in age from 62 to 73 months. All of the children came from a lower socioeconomic class background.

Materials and Procedure: Two tests were individually administered to all subjects, the Bender Visual Motor Gestalt Test (BVMGT), and a discrimination test, adapted from the Bender for this study. The BVMGT was administered and scored to yield a perceptual score according to the standardization procedure recommended by Koppitz (1964). The discrimination test consisted of an original Bender design and four stimulus choices. One of these choices was the standard design while three were variations of the standard design based upon errors commonly made by children on the BMVGT (rotation, integration, perserveration and/or distortion). A sample item of the discrimination test is presented in Figure 1. The child, presented with the standard and four stimulus choices, was asked to select the design which looked exactly like the standard. The test was scored on the basis of the number of items correct over nine (the total number of correct possible responses). Positional errors were eliminated by random placement of the standard. The children were randomly assigned

FIGURE 1. Sample of the discrimination task.



to two groups. Group I received the discrimination test followed by the BVMGT. Group II received the BVMGT first, and then the discrimination test.

In order to permit comparisons between visual-motor performance and discrimination performance the results from both tests were converted into standard scores (z scores) (Edwards, 1968) A Pearson product-moment correlation coefficient was then computed to assess how an individual's performance on one test related to his performance on the other. To permit a more clear picture of the individual's performance, a frequency distribution was charted and a median obtained for each set of scores. The subjects were then divided into three groups according to whether their performance was poor, average, or good. Scores falling below the median were categorized as poor, while those falling above the median were considered good.

RESULTS AND DISCUSSION

The obtained correlation coefficient of -.19 was not significant (p .05 = approximately .2319), indicating that performance on one test was not related to performance on the other. It was possible for a child to discriminate forms well and still obtain a score on the Bender which indicated "perceptual" difficulties. The reverse was also true. If any trend can be inferred from the results, the negative nature of r might be construed to mean that, in fact, good performance on one might even mean poor performance on the other. Since the obtained correlation was not significant, the best that can be said is that no relationship between the two performances was noted.

These results speak for the group as a whole, but do not depict clearly information about the children who make up the group. Table I which presents the frequency analysis offers more meaningful information. Although half of the children performed in the same manner on both tests, the other half did not do so, indicating again that it is not possible to assume that because a child does well on the discrimination test, he will also do well on the BVMGT.*

For education, the implications are obvious. It would be highly questionable to subject a child, labeled as having perceptual problems, to remedial tasks requiring visual discrimination in the service of perceptual training, if, in fact, he can perform this task well. A number of researchers interested in perceptual development and its relation to learning have recognized the limitations of many of the methods employed for studying the perceptual process (Abercrombie, 1964; Birch and Bortner, 1960, 1962; Frostig, 1968; Wepman, 1967). Frostig (1968), for example, criticizes perceptual-motor tests, such as the BVMGT, because they not only are contaminated by other skills, like motor ability, but because they also fail to differentiate between the various perceptual abilities. To meet this criticism, her own test was designed to measure five operationally defined visual perceptual functions. The problem is that upon mere inspection of the Frostig scale, one is led to question how the scale has eliminated the motor component so as to measure "pure" perception, since most of the tasks require the use of a pencil. Further, a factor analytic study of the Frostig scale suggests that at best only two factors are being tapped (Hueftle, 1967). One appears to involve eye-hand coordination and an ability to understand and remember directions. The other is described as involving eye-hand skill, the ability to recognize and recall geometric shapes, and the ability to understand and remember directions. The finding that the individual tests of the Frostig scale possess a common perceptual function and are not sufficiently different to warrant the assumption that they are measuring separate perceptual abilities was corroborated by Olson (1968) in another factor analytic study.

---

*Poor performance on the Bender cannot therefore unequivocally be ascribed to perceptual deficit alone, perceptual deficit in conjunction with motor dysfunction, motor dysfunction alone, or inefficient coordination of visual and motor processes. In short, the BVMGT has many short comings as a test of differential diagnosis for perceptual deficit.

In an unpublished study we found that the same result holds true for the Valett scale. It would seem that despite Frostig's claims, the scale does not seem to be doing much better in separating out the motor and coordination components of perception than the visual motor tests she criticizes. Certainly, the scale seems to be tapping a component quite apart from visual perception - namely, the ability to understand and remember directions. It is quite probable that this component is related to the function tapped by Zach and Kaufman (1969). Learning to follow directions is probably one of the skills derived from "test-taking" experience.

It is obvious that how one performs on a test which measures some aspect of perception is determined both by what the child brings to the situation, and by the demands a given task makes on the individual child. For a number of years Birch (1962) has been concerned about the fact that many psychologists study perception as if it were a unitary event, rather than a developmental fact. In order to understand the perceptual process, one must consider it developmentally, that is, in terms of perceptual levels. From his own studies, he postulates that the earliest level involves perceptual discrimination, which is followed by a later level of perceptual analysis, and a still later level of perceptual synthesis. This position would have predicted that, in the present study, children who do well on the discrimination test would not necessarily do well on the more complicated task involving visual-motor and perceptual integration - a fact borne out by the results. It would have also predicted that children who did well on the BVMGT should have acquired the developmental perceptual acumen to have succeeded on the discrimination test. This was not borne out by the results.

An examination of Table I shows that for 35 children, performance on one was positively related to performance on the other. For the other half, there was no relationship. Five children who did well on discrimination did poorly on the visual-motor task, a result which can be explained in terms of Birch's hypothesis.

TABLE 1. Frequency analysis of subjects' performance on both tasks.

		Poor	Average	Good
Visual	Poor	14	5	5
Performance	Average	4	4	4
	Good	13	4	17

The burden of explaining the performance of 13 children who did well on the visual-motor task, but poorly on the discrimination task remains. Either it is not true that a discrimination task is a developmental prerequisite to the more complex task required by the BVMGT, or the discrimination task used in this study was drawing on other facets of perception. The authors are inclined to conclude that the latter is probably the case. An analysis of the demands of the discrimination test shows that more than simple, pure discrimination ability was required. For success, a subject had to first call from the four stimulus choices one which correctly matched the standard, a procedure demanding perceptual analysis. He also had to organize the figures for himself in some way so as to draw upon some aspects of perceptual synthesis. To check this hypothesis, the authors are replicating a portion of this study and introducing a simple matching task which requires the subject to respond "same" or "different" to two stimuli. This may offer a more pure measure of discrimination.

The ease with which psychologists and educators fall into the pattern of labeling children "perceptually handicapped" without a clear understanding of the measurements used in identifying these children is probably one reason why training programs have not produced the results anticipated. Although it seems to be accepted that perceptual training can alleviate the problems of many failing youngsters, the evidence at this time is not overwhelming. Some studies report no real effect on school achievement as a result of training (Arciszewski,1969; Gallagher, 1960; Jacobs, 1968). Others which report gains have either limited numbers of subjects, no controls, or poor controls (Allen & Dickman, 1966, Alley, Snider, & Spence, 1968; Painter, 1966; Talkington, 1968). Special training programs do not seem to improve achievement any better than good teaching (Cohen, 1970). On the basis of the available data, we believe that we must caution educators against haste in designating children as perceptually handicapped. That some children have perceptual problems which handicap their school achievement, there is little doubt. How these children are identified, how their problem is defined, and how they are trained to become successful learners, however, is still unclear. It would seem that although education begins with an understanding of the strengths and weaknesses of the child, a label derived from a global concept which lacks adequate definition and questionable means for its measurement does not provide a shortcut to good pedagogy. To speak about perceptual deficit may be misleading since all children do perceive. The critical task for education is to delineate how children perceive, what they perceive, and through what sensory channels they process information.

ACKNOWLEDGEMENT

This experiment was conducted by students in the School psychology program at Yeshiva University which is supported by National Institute of Mental Health Grant #MH11102-03.

REFERENCES

Abercrombie, M.: Perceptual visuomotor disorders in cerebral palsy . Spastics Society Medical Education and Information Unit, London, Heineman, 1964.

Allen, R. M., and Dickman, I.: A pilot study of the immediate effectiveness of the Frostig-Horne training program with educable retardates. Exceptional Child., 1966,33, 41-42.

Alley, G., Snider, W., and Spence, J.: Reading readiness and the Frostig training program. Exceptional Child, 1968, 35 (1) 68-69.

Arciszewski, R. A.: The Effects of Visual Perception Training on the Perception Ability and Reading Achievement of First Grade Students. Dissertation Abstracts, 1969, 29, (12A) 4174.

Barbe, Walter B.: Perceptually handicapped. In: E.C. Frierson and W. B. Barbe (Eds.), Educating Children with Learning Disabilities, New York: Appleton-Century-Crofts, 1967.

Barsch, Ray: Achieving Perceptual Motor Efficiency: A Space Oriented Approach to Learning. Seattle, Wash: Seattle Sequin School, 1966.

Birch, H. G. : Dyslexia and the maturation of visual function. In: John Money (Ed.), Reading Disabilities. Baltimore: Johns Hopkins Press, 1962.

Birch, H. G., and Bortner, M.: Perceptual and perceptual-motor dissociation in brain-damaged patients. J. Nervous and Mental Disease, 1960, 130, 49-53.

Birch, H. G., and Bortner, M.: Perceptual and perceptual-motor dissociation in cerebral palsied children. J. Nervous and Mental Disease, 1962

Cohen, S. A. : Cause vs. treatment in reading achievement. J. Learning Disabil., 1970, 3 (3), 163-66.

Edwards, Allen L.: Experimental Design in Psychological Research, New York, Rinehart, 1968.

Frostig, M.: Education for children with learning disabilities. In: H. R. Myklebust, (ed.), Progress in Learning Disabilities, New York, Grune & Stratton, 1968.

Frostig, M. and Horner, D.: The Frostig Program for the Development of Visual Perception. Teacher's Guide. Chicago: Follett Publ. 1964.

Gallagher, J. J.: The Tutoring of Brain-injured Mentally Retarded Children. Springfield, Ill.: Charles C. Thomas, 1960.

Hueftle, M.K.: A factor analytic study of the Frostig Development Test of Visual Perception, the Illinois Test of Psycholinguistic Abilities, and the Wechsler Intelligence Scale for Children. Dissertation Abstracts, 1967, 2140b.

Jacobs, J. N., et al.: A Follow-up Evaluation of The Frostig Visual Perception Training Program, Educational Leadership Research Suppl., Nov. 1968, 169-175.

Johnson, Doris J., and Myklebust, H. R..: Learning Disabilities: Educational Principles and Practices. New York, Grune & Stratton, 1967.

Kephart, N. C. : Perceptual-motor aspects of learning disabilities: Exceptional Child. 1965, 31, 201-206.

Koppitz, E. M.: The Bender Gestalt Test for Young Children, New York: Grune & Stratton, 1964.

Olson, A. V.: Factor analytic studies of the Frostig Developmental Test of Visual Perception J. Special Education, 1968, 3 (4), 428-433.

Painter, G.: The effect of a rhythmic and sensory motor activity program on perceptual motor spatial abilities of kindergarten children. Exceptional Child. 1966, 33, 113-116.

Radler, D., and Kephart, N.: Success Through Play. New York Harper, 1960.

Silver, A. A., Hagin, R. and Hersh, M. F.; Reading Disability: teaching through stimulation of deficit perceptual areas. Amer. J. Orthopsychiatry, 1967, 37, 744-752.

Talkington, L. W. : Frostig visual perceptual training. Perceptual and Motor Skills, 1968, 27 (2), 505-506

Valett, Robert E.: The Remediation of Learning Disabilities. Palo Alto, Calif.: Fearon, 1967

Valett, Robert E.: Programming Learning Disabilities. Palo Alto, Calif.: Fearon, 1969.

Wepman, J.M.: The perceptual basis for learning. In: E. C. Frierson and W. B. Barbe (Eds.) Educating Children with Learning Disabilities, New York: Appleton-Century-Crofts 1967.

Zach, Lillian and Kaufman, Judith: The effect of verbal labeling on visual motor performance. J. Learning Disabil., 1969. 2 (4), 218-222.

MYTHS IN REMEDIAL EDUCATION

Norman E. Silberberg, Ph.D.
Margaret C. Silberberg, Ph. D.
Minneapolis, Minnesota

Research in remedial reading which utilized control groups consistently has demonstrated two outcomes: (1) tested reading achievement is significantly higher in the group which received remediation than in the control group at the completion of the remedial period; and (2) follow-up studies almost invariably demonstrate that the beneficial effect of this remediation "washes out" in a relatively short time after terminating remedial reading. Despite this depressing information, remedial programs and experimental programs continue to flourish. The "myth" - that remedial reading works - is analyzed in this paper by examining its supporting rationalizations and the other factors that help keep it alive. A plea is made for reallocation of priorities for the education of children with learning difficulties.

The "information lag" in education appears to be growing. Many of the myths which underlie educational programs of 20 years ago still exist. For example, an assumption that a competitive sports program builds character was the main rationale given for the growth of such programs and, despite no discovered relationship between the bicep and character muscle, this concept persists. As the society becomes more technologically oriented, the search for programs which may serve as educational panaceas becomes increasingly frantic. Typically the society settles for several expensive placebos.

Many of the programs currently popular in education appear to totally ignore the research evidence relating to them. Others are related, however vaguely, to "research," sometimes more and sometimes less strictly defined. Rather than serving as a basis on which carefully conceived educational programs are constructed, such research often functions as a rationalization, invented after the fact, for educational programs popular with teachers and administrators. If a new research project seems rather pessimistic about the probable outcome of a favorite program, it is typically ignored in favor of one that is more friendly. In choosing which research results to put into practice, the criterion is not relevance nor validity and coherence but, all too often, agreement with the opinions and programs popular in the educational establishment.

The word "experimental" is often used somewhat loosely in educational circles. It has come to mean something roughly equivalent to "novel" or even "bizarre," and no longer seems to imply that research, replete with controls, carefully selected samples, etc., is necessarily in progress within the "experimental" program. One of the most expensive and obvious examples are the "experimental" school buildings being erected in progressive communities. We have round buildings and square buildings, high buildings and single-story buildings, snail-shaped buildings, and hexagons or pentagons, windowless buildings versus glass buildings, schools dependent on reducing extraneous stimuli to a minimum, and schools which have eliminated walls to maximize a lack of structure. The experimental programs within their walls display an equal variety of forms and colors. Despite the millions of dollars which are spent on these non-experimental experiments, no controlled studies are reported to determine whether any of these many shapes should be duplicated elsewhere.

Nowhere is the current practice so diametrically opposed to research results than in the area of remedial education. Stephens (1967) summarizes much of the research concerning educational programs by stating, "The constancy of the school's accomplishment is one of those things that everybody knows. It is part of the folklore that, in educational investigations, one method turns out to be as good as another and that promising innovations produce about as much growth as the procedures they supplant, but no more." Stephens reviews studies ranging from 1897 through 1964 which are consistent with Nachman and Opochinsky's (1958) statement that, "Reviews of teaching research have consistently concluded that different teaching procedures produce little or no difference in the amount of knowledge gained by students." Again these types of research results are totally ignored while efforts are made to upgrade schools, reduce class sizes, introduce new textbook series, etc., even though objective research on these issues will yield less than happy outcomes for the advocates of these programs.

It is the purpose of this paper to select one area, remedial education, to discuss some of the reasons why the research outcomes are so diverse from the actual programs being carried forward. None of the nine reasons to be presented are probably new to persons interested in research outcomes. However, it is the attempt to summarize them and make some recommendations for the improvement of the process between the research outcome and actual program which is the focus of interest here.

For the sake of clarity, the discussion to be presented will attempt to limit itself to the area of learning disabilities without regard to socio-economic factors. There would appear to be sufficient information (Coleman, 1966) to indicate that the problems of ghetto education are more socioeconomic than educational, even though educators have accepted the role of whipping boy for a society which has imposed cultural restrictions on Negro achievement in all fields of endeavor.

Most of the research in the area of learning disabilities has dealt with children with reading retardation. By and large most research indicates that children subjected to remedial reading show short-term positive effects. For example, Balow (1965) reported on a study dealing with the reading growth of children given two hours of daily reading remediation for a five-week period during the summer. The group gained five school months in reading. Several other studies quoted by Balow also indicate an immediate gain in reading. After follow-up, however, he concluded that "...severe reading disability is not corrected by short term intensive courses of treatment." For those of Balow's sample who continued with remediation after the summer instruction, their progress was only 75 percent of the normal rate of development.

Collins (1961), compared three matched groups in England: one group attending a remedial center, a second group treated at school, and a control group. The two experimental groups, tutored by psychology students, did significantly better than the controls after six months of remediation. One and two-year follow-ups indicated that the experimental groups and the control group were reading at the same level.

Lovell, et al. (1963) attempted to assess the effects of remedial education on the latest school performance of junior school children in England. Using children of a reading age less than 85 percent of their chronological age as a definition of backward readers, 184 children so classified were compared with 77 normal children. Both groups were in attendance at a full-time remedial center. It was found that there were some beneficial effects from the remediation, although the reading level of the backward readers was not raised to the level of the control students.

Rasmussen and Dunne (1962) compared two groups of retarded readers with normal intelligence: those who were in corrective classes three years earlier and those who were not. There was no significant difference in the reading improvement of the two groups. However, the remediation reduced the number of dropouts as these groups reached grades nine and ten.

In a recent study, Buerger (1968) found remedial reading instruction improved tested reading upon completion of the remedial period, but no significant differences were found in mental ability, English, social studies letter grades,and standardized reading test performance between subjects and controls at followup. Herkerl and Sansbury (1968) followed six early adolescent boys through a three year remedial program. Two years after termination, they were tested in reading. The mean score on the Gray Oral Reading Paragraphs for the group was 0.3 years lower in reading than their mean score at the end of the remedial period.

Smith (1967) also found that children who received remedial help in fourth grade showed, when compared to a control group, no differences on reading achievement tests or IQ tests. In other words, longitudinal studies of remedial reading demonstrate that there is an increment, often of a large magnitude, at the completion of the remedial period. However, this improvement quickly "washes out" and the children seem to sink to a level commensurate with their preremedial experience.

Is the failure to consider these outcomes merely a matter of an agreement that a reading problem must be overcome, despite the research evidence, or rather a matter of an unconscious determination to ignore the research evidence? Let us examine some of the problems involved with this type of inconsistency in the hope of developing some hypotheses.

THE QUESTION OF DEFINITION

No one definition of learning disability exists. Part of the difficulty of definition arises from the fact that learning skills, like most human traits, are distributed along a continuum. Any definition of learning disability involves establishing a cutoff point on the continuum. The difficulty lies in deciding where to put the point.

Inspection of the tabled grade equivalents for any normed reading test shows that most tests have a five-grade spread of grade equivalents for any single grade. For example, if a test is administered in grade 4.5, the grade equivalents typically will range from 2.0 to 7.0. By definition, we expect 50 percent of children to be below grade level in their reading skills.However, it obviously would be wrong to define all children below grade level as reading disabled. It is clear that some estimate of the children's intellectual potential must be included in a definition of reading retardation. Certainly, a child with a 76 IQ who is at the 5th percentile in a regular class is achieving at an expected level. A child with an IQ of 90, who is at the 5th percentile on a standard reading test, may or may not be considered a backward reader, depending on the definition applied to his particular school or class.

Obviously, there is a continuum of discrepancy scores between a child's observed and expected reading scores. Most research emphasizes one end of this continuum - the learning disabled children - although Silberberg and Silberberg (1967) cite cases of children whose mechanical reading skills are significantly superior to their intellectual aptitude. Since the upper end of this continuum is typically ignored, the question of where to divide this continuum into "normal" learners and "retarded" learners is a critical one, and the decision is usually an arbitrary one: Rabinovich (1954) defined his group as children who are...."two years or more below the mental age obtained in performance tests." Bond and Tinker (1957) derived a formula to set up expectations for reading level based on IQ and school experience. Many studies operationally define retarded learners as children who are referred to clinics for remediation. More unfortunate are the studies which neglect completely the concept of definition. Some studies present examples of a child who is considered dyslexic because of the presence of visual-perceptual problems without even considering the child's reading level (Silberberg and Feldt, 1968, and Keogh, 1963, have demonstrated that many children with visual perceptual difficulties do not have reading difficulties) Another factor in the difficulty of defining learning problems is the grade level at which the problem is approached. One would expect that a third-grade child who is one year below expected level in an area of learning has a more severe problem than a child in sixth grade who is also one year below expected level.

Thus far, no one has come up with a definition which has achieved anything approaching general acceptance from either the researcher or teacher. Rabinovitch's definition seems to accept the tenuous presumption that Performance IQ represents a child's capacity while his Verbal IQ may be altered by environment. Formulas, such as Bond and Tinker's usually are not satisfactory in the early grades and would be inconsistent from grade to grade. Most other definitions suffer from arbitrariness or impracticality. The most satisfactory answer thus far would appear to be establishing a normative population similar to Jastak's (1965). The weakness in Jastak's approach is the inclusion of age with grade equivalent, expectation, and percentile in his tables. Expected age for a child in any grade may vary from school district to school district and be altered by special circumstances. Silberberg and Silberberg (1968) innovated on Jastak's approach by entering his tables where the grade placement of a child in question most closely approximated the grade placement of a child with a 100 IQ in that table. Then, utilizing the IQ equivalent method, an estimate of an expected reading level is obtained. Considering the hundreds of publications on learning disabilities, it is amazing that none have established useful relationships between grade placement, reading level, and IQ so that an expected reading level can be established for any child, and the standard error of difference can be used to establish cutting points between normal, borderline, and retarded readers.

SELECTION FACTORS IN SAMPLES

Often the reader of a study remains unaware of selection factors which produce biased results. Either selection criteria are not described in detail or, more probably, the "method" selection of most research reports may not receive the intensive reading that the "results" section receives. However, the results of some studies have been diluted because of factors which are not blatant but nevertheless should affect the outcome. For example, in studies of primary grade children, the elimination of those children whom the teacher intends to retain at the end of the school year may eliminate a very important subsample which would clarify the relationship between the criterion instrument and the extent of learning disabilities.

Further problems concern the use of psychometric instruments as a criterion for selection. It seems surprising that many researchers are apparently unaware of the important differences between group and individual IQ tests. When group IQ tests are being used to select the sample of upper elementary or secondary level children with learning disabilities, it must be recalled that these tests are based on the ability to read. For children without an efficient skill in this area, the test is often a very poor indicator of the child's potential functioning. In the primary grades, IQ tests typically consist of items which largely are concerned with the child's visual-motor and visual-perceptual coordination. It has been demonstrated elsewhere (Silberberg, Iversen & Silberberg, 1968) that skills in working with nontextual materials are not very good predictors of a child's functioning in the reading area.

These problems are not new and are called the "Wishful Will-to-Believe" by Glass (1968). It is unfortunate that the criticism of such studies appears after the "Summary and Conclusions" section has been accepted as scientific truth. Probably, what is needed most are more articles of criticism and more space within textbooks devoted to the critiques of earlier studies.

ESTABLISHING RULES BASED ON HETEROGENEOUS GROUPS

Many of the characteristics of learning disabled children have been established by measuring randomly selected groups of "normal" children and comparing them with a group of learning disabled children. Statistical tests are then applied and certain rules are established about the problem areas of learning disabled populations. Reading problems are thus assumed to be symptoms of other maladies rather than causes. Since visual perceptual problems, auditory discrimination problems, emotional problems, etc., are found to be associated with reading difficulties, these studies suggest giving instruction in these problem areas rather than attacking reading disability directly.

When investigating populations of learning disabled children, it is interesting to note that, as a group, they are inferior to "normal" groups in many areas. These include tests of visual perception, auditory perception, hand dominance, eye dominance, EEG patterns, and other neurological correlates such as balance, behavioral difficulties, etc. From the macroscosmic view, a general conclusion can be made that learning disabled children probably are not as neurologically integrated as normal children and, as a group, their learning difficulties are merely another area of performance where this differential brain functioning is manifested. Unfortunately, most practitioners do not look at the vast body of research but rather look at the problem in microcosm.

For example, many studies have shown that children who are learning disabled frequently have visual-perceptual problems, ad defined by the child's performance on a test of visual perception. Many practitioners have assumed that this is a casual relationships and, therefore, that reading level can be improved by training in visual-perceptual abilities. Research (Goins, 1958; Olson, 1966; M. Silberberg, 1966; Rosen, 1965) on the training of visual perception demonstrates that the children's scores increase on tests of visual perception, but there is no carryover to reading. After careful reflection, this is not at all surprising. If visual-perceptual skills were casual to the reading process, then all children with perceptual problems also would manifest reading problems. However, any clinical practitioner has discovered children with severe visual-perceptual problems when it came to decoding textual materials, whereas these problems do not appear on our traditional tests of visual perception. Nevertheless, the fact that correlation does not mean causation cannot be construed as a new discovery.

THE SELECTION AND PROPER USE OF CRITERIA

To do a research study, an instrument or set of behaviors must be selected which can be utilized as a criterion for evaluating the program, technique, or educational variable under investigation. However, there is a type of criterion which often becomes involved in studies which could be labeled the "sop" criterion, that is, a criterion which is designed as a sop to some influential group or to reduce the offensiveness of the expected findings. The effect of inclusion of such criteria in research studies is often to seriously reduce the negative implications of the actual findings. Statements such as, "Although no statistically significant differences were obtained, the teachers greeted the program favorably," or "Despite the lack of effect on student achievement, the staff administering the program were convinced of its Utility" impart a different general attitude to the reader than the research results dictate.

Another question in the criterion area is whether the criterion chosen is appropriate to the experiment. For example, utilizing a series of attitude scales to assess the effect of a compensatory educational program does little to inform the reader of the value of the program in terms of incremental achievement, even though it can be predicted with some assurance that over the course of time children can learn the appropriate responses to attitudinal scales.

Of course, the use of statistics to prove a point can be misleading. The only defense against this is a careful reading of the article. For example, Eisenberg (1966) attempted to inform pediatricians that reading retardation exists and is a medical problem. Basically, what Eisenberg did was to take the normal distribution of reading level and split it up into three gross subclassifications based on socioeconomic status. In looking at the curve for the lower socioeconomic group, it was obvious that this distribution was positively skewed and, therefore, in need of rehabilitation. As would be expected, if the subject were given some thought, the distributions for the middle and upper socioeconomic groups would, if weighted properly, reform the distribution into the expected normal curve. The simple basic fact which was overlooked in this paper, and seems to be overlooked almost continuously in remedial educational programs, is that educational attainment is typically measured by instruments which utilize a normal distribution.

Scores on achievement tests are relative and are an indication of how well an individual child does in comparison with a normal population. There is no such thing as a "sixth grade reading level" except as defined by the text author or test author. If we discovered new techniques by which we could dramatically raise the reading level of all children by one complete grade level, that is, if children currently able to read in a fifth grade text suddenly were able to read comfortably in a sixth grade text, the same distribution of grade equivalents would hold. All that would transpire would be that the child who is reading two grades below placement on one day would then be transformed the next day into a reader of a textbook one grade higher. However, he would still be two grades below the average student in his grade. His relative ranking would not change one bit.

If, as suggested by many remedial programs, we could take a subgroup of our population and work dramatic miracles on them, the distribution of the entire population would, by definition of the test construction, not change. All that would occur would be a redistribution of individuals within the normal distribution. Lamentably, suspicion can easily be aroused that many educators are planning to cut off the bottom half of the normal curve. There are easier ways of doing this than through remediation. For example, all future reading tests could be constructed in such a way that the norm tables would start at the 50th percentile and go up.

THE RELATIONSHIP OF THE CRITERION TO THE EXPERIMENT

It is commonly found that educational innovations result in short-term changes in performance, as measured by certain criterion instruments, but that these changes disappear over time. One hypothesis which may account for this occurrence is presented in at least some studies. M. Silberberg's (1966) study exemplifies this type of outcome. In this study, kindergarten children were trained in reading readiness and the positive effects of this training appeared, although inconclusively, on the reading readiness tests in comparison to the control group which did not receive the reading readiness training. However, as expected, at the end of the first grade the effects of this training did not alter the children's scores on a reading test. Furthermore, it was later discovered (Silberberg, Iversen, and Silberberg,1968) that most of the variance accounted for by the reading readiness test in predicting to end of first grade reading scores was due to one subtest in the reading readiness test, a subtest which involves actually reading letters and numerals. The largest part of the reading readiness test did not appreciably change the multiple correlation between the kindergarten and the first grade tests.

Could it be that the reason for short-term changes in many cases is that children are taught materials appropriate for the criterion instrument? In other words, some experimental programs may inadvertently be teaching the children how to perform on the criterion tests, a transitory skill, which does not maintain in longitudinal studies. In fact, this seems to be the case in reading readiness training (Silberberg and Iversen, 1968). It is not surprising that programs have been described in the literature which even raise children's IQ's as measured by an individual IQ test, when these children were taught the types of skills called for by an IQ test. In this situation, it would be expected that their performance a year after completion of this special training would be very similar to their IQ's before initiation of the experimental procedure.

Of course, in certain cases the question of criterion becomes meaningless: If a school commits itself to purchasing expensive equipment, such as computerized typewriters which cost tens of thousands of dollars each, it may be too late to discuss whether a criterion is appropriate or not.

THE TEACHER INFLUENCE

It is very difficult to discuss the subject of teacher's influence on test outcomes because it is a subject which usually is not mentioned in polite, professional literature. Furthermore, information on it is based on a small number of cases limited to the experience of the authors and their colleagues. For lack of a euphemism, this phenomenon can only be labled "teacher cheating." Oftentimes, when a teacher knows that he or she is involved in an experiment, it is very difficult to convince this teacher that the experiment does not reflect directly on his professional competence. Teachers attempting to help children have been observed. In one case, the authors were informed that a teacher had obtained copies of a criterion measure and had reviewed this instrument with his class on the day before the criterion measure was to be administered. In another case, the experimental group was reported to have been taught with the criterion instrument in mind.

If this is a widespread occurrence, it is more likely noticed by graduate students than busy professionals in the field, who are not as intimately involved in the administration of criterion instruments. It may be partly for this reason that on follow-up studies in longitudinal experiments this phenomenon does not appear with great frequency, possibly because the experimental group's present teachers do not perceive themselves as being evaluated at the time of the administration of the criterion instrument. If this problem does exist to a great enough extent to alter research outcomes, it may require that educational researchers become more involved with the dirty work of their research rather than delegating it to teachers and persons not committed to the objectivity of a research outcome.

THE IMPORTANCE OF PUBLICATION POLICIES

Although this principal has not, in all likelihood, been demonstrated statistically, many educational researchers probably realize that it is much easier to obtain acceptance for a submitted research paper if the magic words "Significant differences occured...." appear instead of "no significant differences were obtained." It has been rumored that many editors believe that, if significant outcomes are obtained, this implies better research planning than if no significant differences are observed. One of the authors received a letter of rejection which said that the lack of significant differences in his study would probably not be of interest to readers and, furthermore, the results were not surprising since it had been hypothesized that no differences would be found.

This impression gains credence when one compares the reports in Dissertation Abstracts with those reported in professional journals. From a subjective point of view, it appears that many more experiments yield non-significant results when done as part of a doctoral dissertation than when done in the field as a professional researcher. It is certainly not the quality of the dissertations which causes this state of affairs, since they are at least as carefully administered and documented as the articles appearing in professional journals.

Such publishing policies may be based on a false concept of "significance." Results that are non-significant in the technical sense can easily have more genuine significance for the field of education than studies whose results are technically significant. Such significantly non-significant studies are those which overturn popular or prevailing ideas by showing that common assumptions and beliefs (particularly about causal relationships do not hold true when tested.

It is therefore proposed that either a Journal of Non-Significant Results be established or that the existing journals begin devoting more space either to reports or abstracts of studies which yield important, yet non-significant results. In this way, the professional educator can obtain a more realistic picture of his chances for positive outcomes when innovating with popular techniques. The educator can then choose whether to try the program, knowing full well that there is a considerable probability of non-significant outcomes, or opt to direct his search in a different direction and avoid the embarrassment of an expenditure for programs which have little effect on learning achievement.

THE APPLICABILITY OF RESULTS

There seems to be a developing tendency to extrapolate easily from the measured effects of an experimental procedure on a small select population to the entire population. Probably the most blatant occurrence of this in recent years has been the popularization of behavior modification techniques which are based on extrapolations from rat experiments to humans. At that point, the techniques were applied to small subgroups of children in specialized settings. Aside from the N=1 "experiments," favorable results have been reported. Many of the experimental artifacts, described in these sections, may have occurred in some of these experiments. However, assuming that real change did occur in the behavior of these children, we were still left with the question of practicality.

Based on these experiments, many exponents of these techniques recommended that they could be applied within the classroom. Amazingly, some practitioners accepted this suggestion, even though the research which supposedly effected change may have cost as much as five or ten thousand dollars in man hours in order to achieve success. Considering that the average expenditure per pupil in public schools is less than five hundred dollars a year, it is hardly credible that such research could be applicable within the classrooms. Of course, when behavior modification techniques were attempted within the regular classroom routine, the typical result was negative, as predicted (Beamer, 1966; N. Silberberg, 1967: Taylor and Hoedt, 1966; McGrade, 1966; Spaights and Blum, 1967). It is possibly because of the failure to demonstrate positive outcomes that so much of the professional literature is devoted to "pure" and theoretical research rather than practical research. This leads us directly to the last area to be discussed.

THE PROBLEM OF VESTED INTERESTS

In Section 7, we discussed the possibility of publication non-significant outcomes. However, this in itself does not guarantee that all studies with negative outcomes would be reported. There is probably no way to estimate at this time what proportion of research studies go completely unreported because their outcomes would be personally detrimental to the investigator. Does the university professor, teaching techniques of behavior modification, wish to popularize the studies which have yielded negative outcomes? And, more important, if he did a small-scale study which yielded negative outcomes, would he wish to publish it in a vehicle which is widely read by other professionals? Happily, many such studies do appear in professional literature, even though they are often diluted by the shortcomings noted in Section 4. Yet it is doubtful that there are many amoung us who are willing to state publicly that we are perpetuating myths. It would be difficult for an assistant professor to publicly admit that psychotherapy does not work, speech therapy does not work, or remedial reading does not work, when "work" is defined operationally. This would be directly threatening to the persons whose empires have been built on teaching how to do psychotherapy, how to do speech therapy, and how to teach remedial reading.

Within the schools, the persons with the responsibility of teaching children are inundated with information from book publishers concerning the superiority of this text versus that text, or this workbook versus that workbook. In fact, many curricula could be defined as the content of a textbook series, which means that curricula can be based on the relative skills of book salesmen.

Money, in education as elsewhere, is probably the most important single variable to be considered. As a group, publishing houses are one of the largest educational lobbies in Congress and expenditures for education are great. An attempt to be realistic about research on classroom practices cannot be made without attempting to note the framework within which an attempt to alter these processes can be made.

CAN WE ACHIEVE CHANGE?

It is relatively simple to stand and criticize. If one continued logically from the line of reasoning stated above, the question might easily be asked, "Why bother?" Is remedial education hopeless? Should innovations in remedial education be halted? Not at all. Rather, it would seem more logical to allocate educational research funds to new and creative ideas, even if some of these ideas are aberrant within the rather rigid framework of predominant educational thinking. If, for example, remedial reading actually has no effect on a child's reading level over the long run, why continue to expand remedial reading programs in their present form into more and more schools at greater expense? Could not this money and brain power be more properly focused on less painful ways of presenting a curriculum to a child? Or could it be used to look at ways to expand the curriculum to meet the needs of more children, rather than attempting to find new ways of altering children's behaviors to meet the needs of a rigid curriculum?

Possibly what is needed is to stop and look at our curriculum in light of its relationship to the problems of the real world. This may be the time for education to assert leadership in the society, rather than assume the follower's role. Can educators tell personnel directors that their job criteria are often unrealistic in terms of the capabilities present in a normal population? Can educators renovate the classical eighteenth century curriculum designed for the talented few and foisted on the unwary many?

Considering the amount of money expended for remedial education per year, may of the problems described seem to be seriously reducing the amount of bang we are receiving for our educational buck. The stakes are too great to continue wasting time and effort on new projects which, if delved into enough, would be found to be useless. Many of the important problems of education, such as who shall run the schools, who shall pay for the schools, etc., have been brought into the open market place for all pressure groups to discuss. The educational researcher has remained apart, deeming it unseemly to join the fray. He stands on the fringes, imparting information quietly and academically. In terms of society's needs, such scholarly and gentlemanly conduct may be unbecoming.

A complete list of references can be obtained from the senior author by writing him at 1800 Chicago Avenue, Minneapolis, Minnesota, 55404.

Norman E. Silberberg is the assistant director for clinical research at Kenny Rehabilitation Institute in Minneapolis, Minnesota. He has worked as a school psychologist and has been lecturing and doing research in the area of learning disabilities.

Margaret C. Silberberg is a school psychologist in private practice in st. Paul, Minnesota, specializing in learning problems. She has done research in the areas of reading readiness and reading abilities.

CHAPTER IV

PROBLEMS IN SPEECH AND HEARING

H. H. Way

The fact that approximately one-third of school-age children need some type of special attention, makes it imperative that regular teachers as well as special education teachers have some orientation to the various types of problems seen in the total spectrum called exceptionality. The speech impaired child, ranging from mild to severe, may be found in many classrooms. Even though the teacher may not practice therapy, there should be an awareness of both the problem and implications of same for the child's future learning and adjustment.

The Speech Impaired

Briefly stated "Speech is defective when it deviates so far from the speech of other people that it calls attention to itself, interferes with communication, or causes its possessor to be maladjusted" (Van Riper, 1964). Telford and Sawrey (1972) consider speech to be defective "when the manner of speaking interferes with communication, when the manner of speaking distracts attention from what is said, or when speech is such that the speaker himself is unduly self-conscious or apprehensive about his way of speaking."

Although it is difficult to get an adequate reading of the prevalence of speech disorders, the American Speech and Hearing Association (1952, 1959) estimated that five per cent of school-age children are seriously defective to warrant speech therapy and that an additional five per cent suffer from noticeable but less serious disorders. It must also be noted that some of these children have additional handicaps such as mental retardation, physical deformities especially in the case of cleft palate, cleft lip, and/or hearing loss.

The reader should become familiar with speech development (beyond the scope of this introduction) in order to know what patterns are expected at the various age levels. Furthermore, some insight should be gathered about the role of cultural and linguistic backgrounds in the production of intelligible speech. This is especially true for dialects, bilingual areas and children from impoverished areas both economically, socially and psychologically.

The types of defects are listed as follows in descending order of prevalence:

Articulatory, by far the greatest in prevalence, consists of omissions, substitutions, distortions and additions of speech sounds.

Voice defects include pitch where the voice may be too high, too low or monotone and quality which refers to nasal, breathiness, hoarseness characteristics.

Defects in rhythm are illustrated by stuttering as the most common example. One should refer to Johnson (1967) at this point in order to differentiate normal non-fluency from defective non-fluency.

Delayed speech refers to a marked retardation in the child's ability to use language. Noticeable differences during the first three years of life should be reported to a physician or speech therapist to determine the cause of the delay. Some possible causes are mental retardation, adjustment problems, lack of stimulation, neurological impairment or hearing loss.

In the case of a cerebral palsied child, speech patterns may be affected in terms of rhythm, as well as being jerky, laborous and slow. When speech defects are associated with hearing loss, articulatory defects are the most common especially with respect to voice production and speech development.

Programs for speech correction involve a speech therapist who may be assigned to a school system or a district on an itinerant basis. In some instances the therapist may work out with a teacher a program for a given child.

The Hearing Impaired

It has been said that no disability exerts more impact on an individual than does that of a hearing loss. This is so because auditory defects often go unnoticed and are confused with other factors such as inattention, lack of motivation, mental retardation and various types of behavior problems. It is important that a distinction be made between the hard of hearing and the deaf child (Cruickshank, 1971) since each group would face different problems from the standpoint of social, educational and medical factors. In recent years the term "hard of hearing" has replaced the term "partially deaf."

Hearing loss refers to the deficit in the better ear in the speech range of frequencies. The reader should refer to a basic survey text for the breakdown of how hearing loss is calculated and the categories into which the various range of defects fall. Various authors place these descriptive ranges within certain decibels (db) of loss but the range may vary from one author to another. Typically, a loss of from 15 - 60 decibels would cover the range called "hard of hearing". A decibel loss of from 60 to 95 db would constitute the range called the "deaf".

It has been estimated that about five per cent of school-age children have some range of hearing loss. Causes vary but are usually listed as congenital, genetic, rubella, and injuries. Undetermined causes reflect the largest per cent.

Since hearing loss is usually mid-identified as other factors, it is imperative that the teacher be alert to the symptoms usually displayed by children with a hearing loss. Some of these symptoms are inattention, failure to respond when spoken to, marked delay in speaking or unusually faulty articulation and an apparent educational retardation in spite of an adequate tested intelligence.

There are differences of opinion regarding programs for the aurally impaired. However, for the profoundly impaired special equipment and special teachers are required. For the less severe, amplication systems ranging from hearing aid to built in equipment in the classroom would be appropriate. These materials must be carefully screened to meet the individual needs of the learner. The general consensus today is that the hearing impaired child remain in the community and attend public schools if adequate provisions are available to him (Van Osdol and Shane, 1972).

The following articles deal with various aspects of speech and hearing problems. Most are research oriented and attempt to discover answers to questions of methodology, or the effect of various experiences on the mediation of the impairment involved. The article by Vernon is a survey of existing research on the intellectual functioning of the deaf. His analysis of the psychological and sociological factors involved together with references to vocational and adjustment levels of the hearing impaired gives the reader a new perspective.

Questions relative to these articles may help the reader not only to concentrate on his reading, but also to make judgments on the value of the findings and ideas presented to the field of special education. Suggested questions are listed below:

1. *As you read each article make an assessment as to its contribution to the field of exceptionality.*

2. *How do the principles listed in the ASHA Midcentury Report apply to all children?*

3. *What other factors might be involved in Reading Readiness besides articulatory competency?*

REFERENCES

Cruickshank, W.M., Psychology of Exceptional Children and Youth, Third Edition, Prentice Hall Inc., N.J., 1971.

Johnson, W. and Modler, D., Speech Handicapped School Children, Third Edition, Harper and Row, N.Y., 1967.

Kirk, S. Educating Exceptional Children, Second Edition, Houghton Mifflin Co., Boston, 1972.

Telford, C.W. and Sawrey, J. M., The Exceptional Individual: Psychological and Educational Aspects, Prentice Hall Inc., N.J., 1972.

Van Osdol, W. and Shane, D.G., Exceptional Children, Kendall/Hunt Pub. Co., Dubuque, Iowa, 1972.

Van Riper, C., Speech Correction: Principles and Methods, Fourth Edition, Prentice Hall Inc., N.J., 1964.

SPEECH DISORDERS AND SPEECH CORRECTION

ASHA Committee on the Midcentury White House Conference

(Editor's note: This is one of a number of papers which served as resource material for the Fact Finding Report of the Midcentury White House Conference on Children and Youth, published in the Fall of 1951. It was written by the Chairman and reviewed by the members of the ASHA Committee which served during 1950 and 1951. Upon its own recommendation the Committee was discontinued by action of the ASHA Executive Council at its annual meeting in December, 1951, the further responsibilities within its area of operations being at that time assigned to Executive Vice-President Ernest H. Henrikson.

Publication of this report has awaited clarification of policy with respect to dissemination of materials prepared for the Conference. The procedures of the Conference did not provide for official approval of these papers. Address inquiries to: National Midcentury Committee for Children and Youth, FSA Building North, Fourth and Independence Ave., S. W., Washington 25, D.C.)

Children with speech disorders make up one of our largest groups of seriously handicapped youngsters. Estimates of incidence are presented in Table I. It is to be stressed that the figures are presented as the lowest defensible estimates; they would be regarded as serious under-estimates in certain respects by some authorities. They leave out of account an estimated additional 5 per cent, or

---

Virgil A. Anderson, George A. Kopp, Darrel J. Mase, Hildred Schuell, Jayne Shover, William G. Wolfe, and Wendell Johnson, Chairman.

2,000,000, children who have relatively minor speech and voice defects, unimportant for most practical purposes but serious in their effects on personal and social adjustment in some cases, and obviously significant for children destined for fields of work, such as teaching, requiring good speech.

TABLE I. Estimates of incidence of speech defects among children in the United States between the ages of 5 and 21 years, based on an assumed total population of 40,000,000. Gross estimates for all age levess, based on an assumed total population of 150,000,000, and on the same percentages, are also shown.

Type of defect	Ages 5-21 years		All ages
	%	No.	No.
Functional articulatory	3.0	1,200,000	4,500,000
Stuttering	.7	280,000	1,050,000
Voice	.2	80,000	300,000
Cleft palate speech	.1	40,000	150,000
Cerebral palsy speech	.2	80,000	300,000
Retarded speech development	.3	120,000	450,000
Impaired hearing (with speech defect)	.5	200,000	750,000
Total	5.0	2,000,000	7,500,000

The fact that such figures are often regarded by lay readers, and even by school administrators and physicians, as lacking full plausibility serves to point up one of the most important aspects of the problem faced by children with speech defects: their difficulties are generally unrecognized and are seldom well understood. A child with a serious speech defect is not likely to talk any more than he has to, except possibly to close friends, and when he is not talking his speech defect 'doesn't show.' He appears to be an entirely normal child. The cumulative effect of this curiously unappreciated circumstance is that the speech handicapped child tends over the years to feel more and more misunderstood, rejected, and increasingly lonely. The psychology of the speech defective is essentially, therefore, the psychology of frustration and discouragement with consequent withdrawal tendencies and feelings of insecurity so far as social relationships and personality development are concerned.

Since speech defective children do not go about on crutches and appear to have nothing wrong with them, they have been relatively overlooked by the medical profession, by psychologists, and by educators. An examination of pre-medical education and medical school training and internship experience the country over indicates that the systematic and thorough study of the speech function and its disorders is unusual in medical education. This seems to be largely true even in the special areas of pediatrics, orthopedics, neurology, psychiatry, and otolaryngology, in all of which speech disturbances are necessarily encountered in relative abundance. The consequence of this state of affairs is, of course, that most physicians are not thoroughly prepared by special training to examine, diagnose, or treat children with speech defects. These youngsters and their parents must usually turn elsewhere, therefore, with few exceptions, in search of the help they urgently need.

If they turn to the clinical and consulting psychologists, they find a similar situation. While in a few universities clinical psychologists in training may take an introductory course or two in speech pathology, in general nothing resembling adequate preparation for dealing with speech disorders is included in their professional preparation. The result is that few psychologists are well qualified to deal clinically with speech defects.

Disappointed again, those needing help may turn to the schools - public, parochial, or private - and here they find two sets of facts. In the first place, the educational profession generally, as represented by classroom teachers and the faculties of the training centers where they are prepared for their jobs, has given scarcely more attention to the special problems of the speech handicapped than have the physicians and psychologists. A second glance, however, reveals that although very few parochial and private schools do anything about the problem, in a growing proportion of public schools special teachers of remedial speech are employed.

A new profession has come into existence to serve the speech handicapped. The speech pathologist, or correctionist, or therapist, or remedial speech teacher, as he is variously called, is not a physician nor a psychologist, nor is he a teacher in the usual classroom sense. He is a little of each, to be sure, but mainly he is something else instead. Occasionally these other professional groups seem to feel that he is farming their land, but actually it is land none of them had ever bothered to till because apparently it had never occurred to them that anything worth harvesting might be grown on it.

The evaluation of speech pathologists, and of their professional training programs, is to be governed accordingly. The organization now called the American Speech and Hearing Association was established in 1925, and was designed to fill the vacuum created by the fact that no established professional group had assumed responsibility for meeting the needs of the speech handicapped. In 1943 the Association adopted a revised constitution which defined grades or professional preparation and experience in terms of levels of membership. In 1950-51 professional certification was further defined in terms of two grades, basic and advanced, and separately for workers specializing in speech and hearing, respectively, and with dual certification for those adequately trained in both areas. Responsible administrators concerned with employing speech correctionists or with developing college and university training programs in the professional field may be guided, accordingly, by the certification requirements of the American Speech and Hearing Association.[1]

A special problem is to be recognized in this connection by the several state boards certifying public school teachers: speech correctionists are not teachers, in the ordinary sense, and appropriate adjustments in customary certification regulations are necessary if the interests of all concerned are to be properly served.

The professional preparation and certification of speech correctionists must be viewed with particular reference to the need for effective cooperation between speech correction workers and other professional and lay groups interested in the speech handicapped, such as physicians, public health nurses, social workers, clinical psychologists, school teachers and administrators, vocational rehabilitation counselors, parents, etc. As the classification of speech disorders given at the beginning of this report indicates, the disorders differ as to their causes, basic symptoms, the conditions by which they are affected, and the indicated approaches to therapy. In working with the speech of the cerebral palsied, the speech correctionist must cooperate with medical specialists in orthopedics, pediatrics and neurology, and with physiotherapists, occupational therapists, psychologists, teachers, and, of course, the parents. In working with the speech of the hard of hearing another somewhat different pattern of cooperative relationships, including particularly the otologist or otolaryngologist, is to be observed. With cleft palate cases the oral surgeon, orthodontist and prosthedontist are all closely concerned. At the same time, there are many cases of articulatory defect or of stuttering in which the speech correctionist may best take sole responsibility. Even in such cases, however, the speech correctionist must be prepared to recognize the need, or lack of need, for referral to various specialists.

---

[1] Information concerning these requirements may be obtained from the Chairman of the Committee on Clinical Certification, who, for the term 1952-55, is Eugene T. McDonald, Speech and Hearing Clinic, Pennsylvania State College, State College, Pennsylvania.

All of this points to a fundamental consideration so far as professional training programs are concerned. Such programs include:

1. Basic general education at the college level.

2. Foundation courses in speech, phonetics, semantics, psychology and mental hygiene, human physiology, and sociology, plus a general orientation to public education.

3. Speech pathology and speech correction: didactic and laboratory courses plus clinical practice under supervision with each type of disorder; research seminars; original research at the Ph.D. level.

4. Essential supplementary training, at advanced levels of preparation, in audiology, anatomy and physiology, psychological testing and counseling, special education, and investigative methodology, including the design of experiments and methods of statistical analysis.

It will be clear to college and university administrators that adequate programs in speech, psychology, and education are essential to the development of satisfactory basic training (roughly M.A. degree level) in speech pathology and speech correction, and that, in addition, close relationship with a medical school and hospital is most advantageous in any program of advanced training (Ph.D. degree level) in the field.

It is to be noted also, particularly by the governing boards and administrators of public and private agencies concerned with the handicapped, that:

1. Speech correction is essential to the rehabilitation of any type of handicapped person whose speech is defective, and administrative policies governing the working relationships within which speech correctionists carry on their duties are to be kept correspondingly flexible. Speech correction is not properly to be assigned exclusively to medical or to non-medical, to educational or to non-educational, programs.

2. By the same token, the administration and the financial support of speech correction may not properly be arbitrarily restrictive or divisive. For example, certain agencies make funds and services available to a speech handicapped child provided his speech defect has a physical basis, but not otherwise. Any speech clinic supported by an agency with this sort of policy is placed in

the position of (a) having arbitrarily to refuse assistance to a substantial proportion of the children applying to it for help, or

(b) having to operate with two budgets, two staffs, two sets of equipment, and two separate quarters if money restricted to children with 'organic' defects is not to be spent for children with 'non-organic' defects.

Some types of speech disorder, moreover, and many individual cases, are ambiguous and controversial in these terms. For example, some speech pathologists regard stuttering as a symptom of physical impairment or instability; others look upon it as a sympton of personality maladjustment, or emotional instability; others are of the opinion that it is symptomatic of both physical and psychological impairment; and still others regard it as symptomatic of neither, but simply as a form of learned behavior found in normal individuals whose physical or psychological faults, if any, are not causally related to the stuttering, although they may be among the consequences of its frustrating and demoralizing effects. The situation is much the same with regard to the problem of delayed speech development, in many cases of which the highly controversial question arises as to whether there exists or is a history of brain damage or primary organic deficit with associated aphasia.

Research in speech pathology, the training of speech correctionists, the management of professional organizations in the field, and the administration of speech correction services are all carried on under conditions such that it is difficult, and it makes for injustices and the uneconomical and inefficient use of facilities and personnel, to operate with a policy that enforces an arbitrary division of speech defectives so that some of them are excluded from programs designed and intended to benefit them.

The demand for speech correctionists has been felt increasingly during the last 25 years or so. One of the major reasons for this has been that through legislative enactments the public school system of one state after another has been opened up to the development of speech correction programs. The result is that in 1950 the number of speech correctionists wanted for jobs actually existing greatly exceeded the number trained well enough to satisfy even the basic certification requirements of the American Speech and Hearing Association.

In 1950 there were approximately 600 members of the American Speech and Hearing Association who met at least the basic certification requirements, plus another 1,000 members who would meet them in the normal course of events within two years. There are probably also a minimum of 500 speech correctionists able to meet the basic certification requirements who are not members of the Association. It is a reasonable conclusion, therefore, that there are now roughly 2,000 speech correction workers in this country with professional qualifications that the American Speech and Hearing Association would consider 'basic' or 'advanced'. A complete program for the United States would require about 15,000 speech correctionists; this would be one to every 10,000 persons of all ages. Assuming 5 per cent of the population to be affected, there would be 500 cases per worker. It is to be considered, however, that this presupposes maximal use of the trained personnel in case work. Actually, from 5 to 10 per cent of the personnel would always be occupied chiefly in administration, professional training and research. Mortality due to death, reaching of retirement age, marriage, and other reasons for retirement probably runs to 10 per cent at the very least, and just possibly to 20 per cent, of the active working force annually. Replacement, therefore, requires from 100 to 200 new trainees each year per 1,000 active workers in the field. This means that when a relatively full working force of 15,000 speech correctionists has been achieved, from 1,500 to 3,000 new recruits per year must be trained just to maintain the personnel supply. It is already requiring from 200 to 400 per year to maintain the working force so far achieved.

The majority of training centers today are geared to turn out trainees with basic certification only (M.A. degree or less) and most of them are likely to remain indefinitely at that level. There is a need particularly to strengthen and expand the training centers that can prepare trainees to meet both basic and advanced certification requirements (M.A. and Ph.D. degrees). The outstanding practical dangers at the present time are to be seen in the tendency for public school administrators to employ persons to work as speech correctionists who have insufficient relevant training, and for a certain proportion of colleges to undertake professional training programs in this area without adequate clinical and laboratory facilities and without a sufficient number of instructors with acceptable qualifications. These dangers are likely to persist in some measure so long as the demand for speech correctionists substantially exceeds the well qualified supply.

It would appear that the presently available personnel might best be utilized by:

1. Encouraging the most highly qualified workers to accept predominately professional training, supervisory, and research responsibilities.

2. Encouraging workers with basic certification to accept or develop positions on the general level of public school programs in which their duties would include (a) survey and essential preliminary diagnosis, (b) individual and group therapy for the child-

ren most in need of it, (c) inservice training courses for the regular classroom teachers, plus work with them on a consultative basis to care in this indirect fashion for the milder or less urgent cases, and (d) summer clinics on a full-time basis for all speech handicapped children in the school system who can and will attend.

3. Utilization of acceptable workers with less than basic certification for positions under the supervision of certified speech correctionists.

4. Continuous expansion by speech correctionists of their cooperative working relationships with physicians, psychologists, social workers and other professional workers, so that all relevant resources may be brought more and more fully to bear on the practical problem of helping the speech handicapped.

5. The greatest possible use of aid and general cooperation by classroom teachers, parents, clergymen, youth group leaders, and other lay persons closely concerned with individual children.

In the meantime, it is especially important that scientific research be stimulated and financially supported far beyond what has so far been done. There has been a very considerable amount of research on stuttering; a survey by Elliott (1) indicates that over 300 graduate theses dealing with stuttering hase been completed in recent years in American universities. Generally speaking, less research has been done on the other types of speech disorder. Experience with war-injured patients with aphasia has stimulated increased research on aphasia and its treatment. A few notable investigations of cleft palate and the speech problems associated with it have been done in the past few years. There is a particularly great need for research on the speech aspects of cerebral palsy, the speech problems associated with impaired hearing, and retarded speech development. Much more research than has been done is needed in order to clarify the baffling etiological backgrounds of ordinary functional articulatory disorders.

In general, with the partial exception of stuttering, the disorders of speech have been impressively neglected from a research point of view. Diagnostic principles, examination procedures, and retraining methods have gone for the most part unevaluated in a strict scientific sense. As a consequence, it is quite likely that a considerable proportion of the funds now being spent on clinical work in speech is being wasted because the methods used in many instances are relatively ineffective, even possibly futile or harmful in some cases, or at least less adequate than they could be. In a professional field as new as speech pathology it would seem reasonable to recommend that at the very least 10 per cent of all expenditures, from public or private funds, should go for research. If those responsible for the budgets of the public schools, colleges and universities, hospitals, and large philanthropic organizations do not become more inclined to devote money to research in this field than they have been, the remaining significant alternative would appear to lie in the allocation of Federal funds to this purpose.

The seriousness of speech disorders is to be seen especially well in the problems to which they give rise. It is to be recognized first of all in this connection that in some persons, to some degree, handicapping conditions such as speech defects stimulate compensating drives which occasionally lead to very considerable achievements - or at least they appear to do so. It is clearly difficult to make sure what is cause, what is effect, and what is simply irrelevant in such cases. Does a stutterer become a star shortstop, or a top-flight salesman, because he stutters, although he stutters, or incidentally so far as his speech problem is concerned? Whatever may be the proper answer to such questions in specific instances, it seems well established that other effects of speech disorders are to be described in such terms as these:

1. Speech defectives appear to be retarded scholastically, and to fail to take advantage of opportunities for college training, out of proportion to expectations based on intelligence test data.

2. A speech defect tends to impair the child's relationships with his parents. The child may become less self-reliant than he would be otherwise because the parents are over-solicitous and sympathetic; he may develop a significant sense of insecurity, probably accompanied by feelings of hostility, because the parents, usually in subtle, indirect and even seemingly kindly ways, reject him in refusing psychologically to accept the speech defect; he may, in either case, or under still other circumstances, withdraw socially within the home as well as outside and so fail to achieve a normally intimate relationship with his parents.

3. In some cases, particularly those in which the basic condition is cerebral palsy or aphasia, for example, the degree to which speech is impaired is likely to determine to a large extent the general effect of the condition on the home and family - and on individual members of the family. A handicapped person who can speak normally or nearly so is tremendously different, as a rule, from the family point of view, from one whose speech is gravely impaired. Indeed, the degree to which the life of the handicapped member can be integrated effectively and happily into the life of the family, and the degree to which the family life may be carried on, therefore, in a normal fashion, depends very heavily upon whether the speech function of the handicapped individual is intact.

4. In the absence of needed systematic research, probably the most defensible statement to be made on the basis of common knowledge would place the deficit in earning power brought about by the average speech defect at about 25 per cent. In many instances, of course, as in cases of severe aphasia, the loss in earning power is complete. In most cases, the earning power deficit is determined in large measure by the person's attitude toward his speech problem and his personality adjustment generally. It is a fact with reassuring implications that individuals with speech disorders are to be found in practically all walks of life and levels of responsibility. The number of stutterers, for example, who are successful professional entertainers, teachers, salesmen and industrial executives is impressive - and scientifically significant - in view of the grave handicap stuttering is to most persons who have not learned how gracefully to come to terms with it.

5. Generally speaking, so far as the individual's self-evaluation and intimate personal adjustment are concerned, a speech defect tends to be primarily frustrating and demoralizing. It is to be well appreciated that, aside from actual touch and caress, speech affords the most intimate means of personal inter-relationship for all human beings. It is the chief medium through which we all express and share our feelings, experiences, and mediations. And every speaker is affected by his own speech in ways that contribute heavily to all that we mean by individuality or personality. The need for speech, therefore, has for all practical purposes the status of a basic appetite or drive, and the frustration of it, devastating in some cases, is never without consequence. Aggression, hostility, and resentment are among our most common reactions to significant frustration, and they are to be found accordingly among children and adults frustrated in speech. These are modes of reaction, however, that do not tend to be very rewarding, espec-

ially where speech is concerned, and perhaps it is partly for this reason that the most common important reactions to frustrated speech are feelings of shame and discouragement, feelings of inferiority and insecurity, and a tendency to be shy, to withdraw from social situations, to avoid scholastic and vocational responsibilities, and so to function below par - that is, at a level below that warranted by the individual's evident potential. It is of the greatest significance that all these are reaction patterns that are avoidable. Good childhood training, the best of modern education, effective psychological counseling, and the procedures of present-day speech correction go far to prevent and alleviate such effects of disordered speech.

These, then, are some of the reasons why speech correction is important. As a matter of fact, for the many children who need it the public or private school simply has nothing else to offer that can compare in importance with speech correction. While this may not be generally appreciated, it is much too obvious to be disregarded once it has been made clear.

What is not quite so obvious is the fact that it does something to a school in a pervasive and basic sense, it does something very fine to all the children who attend a school, it does something profoundly enriching to all the teachers and administrators in a school, to have a program in that school that makes the story of the Good Samaritan come alive every morning for every handicapped youngster in the place, that brings 'being good to others' right into every classroom with the same status as being 'intelligent' or 'good looking' or 'popular,' that makes it possible for all children to grow up in surroundings where kindness and a helping hand are taken for granted as part of the normal scheme of things.

Speech correction is important, then, not only for the essential value that it has for children with speech handicaps, but also for the good it does for all other children through the example of humanitarian service that it sets for them day in and day out - and, finally, because the educational principles that underlie the practical procedures of speech correction appear to be sound for practically all teaching purposes and for all children, handicapped or not. These principles are, in fact, the ones that would appear to define, in a general sense and for all children, education for healthy personality growth and effective democratic living. These are the main ones:

1. Effective speech correction involves meaningful exploration of the specific needs of each child, and it involves individual instruction and personal attention generally as the needs of each child require. It involves a deep respect for each child as a unique human being.

2. It involves group instruction so far as possible, because speech is social behavior, and speech correction - like speech in its normal forms - thrives best in a thoroughly democratic social atmosphere. It involves a deep respect for the child as a social being, as one who belongs with others.

3. It incorporates fully the time-tested laboratory finding of experimental psychology that we learn best to do that which we are most rewarded for doing - and so speech correction is carried on in such ways as to make speaking enjoyable and the improvement of speech rewarding.

4. It is based on an appreciation of the close relationship between speech and personality, and so everything possible is

done by the qualified speech correctionist to improve the personal adjustment of the child, and at the same time improvement in speech itself is valued for the greater freedom it affords for personality growth.

These principles, as applied in particular situations and in various concrete ways, may be expected to make richer and more effective our educational program for all children.

REFERENCE

1. Elliott, Charles R., ed. Bibliography of Stuttering. (Mimeographed) Evanston, Ill.: The Book Box, 1951.

ARTICULATORY COMPETENCY AND READING READINESS

Carl H. Weaver
Catherine Furbee
Rodney W. Everhart

It has been fairly well established that speech and reading are closely associated in the linguistic process involving symbolic formulation, evaluation, and expression. Artley (1) conceptualized speaking and reading as two sides of a square which represents language. The other two sides are writing and listening. He considered the four sides to be interdependent and after reviewing the literature concluded that there is a relationship between speech difficulties and deficiencies in reading, though there is no agreement as to the extent of the relationship.

Research in the relation between reading achievement and defective speech began at least as early as 1931 when Travis quoted Murray's thesis to the effect that stuttering seemed to affect both silent and oral reading (18, p. 166). In general, the research has been conducted in two ways: (a) Groups of good and

---

Carl H. Weaver (Ph.D., Ohio State University, 1957) is Assistant Professor of Speech, Central Michigan University. Catherine Furbee (M. Ed., Pennsylvania State University, 1943) is Director of Speech Correction, Public Schools, Saginaw, Michigan. Rodney W. Everhart (Ph.D., University of Michigan, 1953) is Associate Professor of Speech and Director, Children's Speech Clinic, Central Michigan University.

poor readers were given speech tests and the incidence of speech defects in each group compared (13, p. 92, 2, 11, 4); and (b) groups of children with and without speech defects were given reading tests and their scores compared (15, 14). When the former design was used, some significant differences in numbers of speech defects were found between groups of good readers and groups of poor readers. Monroe (13, p. 92) found that 27% of 415 children whose reading was defective also had speech defects, whereas only 8% of a control group had speech defects. Jackson (11) found that 23% of his 300 poor readers had defective speech compared to only 10% of his 300 good readers. Bennett (2), using 50 pairs of children (a good reader paired with a poor reader) found that 9.5% of his poor readers had histories of stuttering which could be remembered by the children or their parents, while only 3% of his good readers had such histories. Using the second design, Moss (15) matched 36 pairs of children, one child in each pair having normal speech and one defective speech. He administered the Gray Standardized Oral Reading Test and found significant differences in the rate of oral reading and the number of errors. Moore (14) found that 236 ninth-grade children with speech defects were not, as a whole, deficient in reading ability, as measured by the Iowa Silent Reading Test. After reviewing these and other reports, Artley (1) concluded that:

> Speech defects may be the cause or result of reading defects, or they may exist side by side as a result of some common factor. There is, however, some concomitant relationship.

When speech defects are causal, the relationship may occur in these ways: (a) Bad speech habits may generalize to silent reading (6, p. 99); (b) the reader may concentrate on his concern about his speech and neglect the meaning; (c) speech defects may upset the rate and phrasing; (d) speech defects may result in errors of pronunciation and consequent misunderstanding of words (10, 1); (e) speech defects may cause dislike for reading and result in less practice than normal speakers get (10).

There is some evidence that the demonstrated relationship between speech defects and inferior oral reading may extend to silent reading, but the evidence is inconclusive.

All of this research has been concerned with the relation between speech defects and reading achievement. Subjects used ranged from the second grade to the college level (8). All, however, had learned to read in some measure and the variable studied (dependent or independent) was reading ability. It is possible, however, that a common factor, possibly phonetic or semantic in nature, underlies both speech and reading. Hildreth (10) wrote, 'Normally, a child's first reading experiences are oral, and even in silent reading the persistence of inner speech suggests the close connection between reading and oral language.' In search of this common factor, research workers have investigated intelligence, auditory acuity, auditory memory span, and speech sound discrimination (8, 12, 17, 13, 9). In general, results are inconclusive. Except for gross inadequacies in these areas, none seems to have any important relationship to speech defects.

Artley (1) and Hildreth (10) attached some importance to the readiness level of the child. Artley described as one aspect of the problem 'limited background for speech growing out of an absence of meaningful experiences with relation to both speech and reading improvement.' It seems possible that readiness for both speech and reading may be related to this kind of experimental accumulation. The discovery of any such relationship would be of both theoretical and practical importance.

In 1957, Betts (3, p. 316) proposed a theory of the sequential development of language which tends to parallel the hypothesis offered by Hildreth (10). In essence, Betts divided the sequence of language maturation in the child into six major areas. These encompass the development of visual perception relevant to objects, hearing comprehension involving discrimination between the speech sounds heard by the child, the production of meaningful speech configurations, reading based upon written or printed symbols, writing, and the general refinement of language control. According to this theory, facility in oral language could reflect directly upon, or be reflected by, a readiness for reading, although Betts did not suggest it. It would appear that some competency in the symbolizing and phonetic abilities underlies both capacity for speech and capacity for reading; and that the accumulated evidence that normal-speaking children are better readers than children with defective speech points to capacities which are common to both speech and reading.

The present investigation thus was designed to study the relationship between articulatory competency and the reading readiness of children as the latter was measured by the Gates Reading Readiness Test. It was hypothesized that the skills and capacities measured by this test are related to the early acquisition of adequate speech.

Procedure

Speech tests and the Gates Reading Readiness Test were administered to 638 first grade children enrolled in the Saginaw, Michigan, public schools. One section of grade one was selected for study in each school currently operating as a regular component of the school system. A responsible administrative official in consultation with the speech correction coordinator determined which sections best represented a typical sample of the area from which pupils were drawn. Care was exercised in choosing sections that were representative with regard to the variates of chronological age, intelligence, race, and socioeconomic level. Pupils possessing articulatory defects stemming from organic etiologies, stutterers, and mental defectives were excluded from the sample.

A clinical evaluation of articulatory competency in both directed and spontaneous speech was made by the speech correction coordinator for each child participating in this study. The evaluation involved (a) asking the child to label a series of pictures designed to elicit the different consonant sounds in the initial, medial, and final positions; and (b) observing the pupil's connected and continuous speech during a brief conversation. Articulatory deviations ordinarily present in the speech patterns of normal speaking individuals and those attributable to dialect were not considered. Only disorders of articulation that could be classified as substitutions, omissions, distortions, or additions were recorded. An error of position also was counted as one misarticulation. Thus it was possible for a child to exhibit 68 errors in the production of the so-called 'pure' sounds. In addition, 30 blends were tested, making possible an articulation error score of 98. A child whose speech demonstrated none of these errors was considered to possess 'normal' speech.

The reading readiness test was administered by the regular classroom teacher. Both the speech and the reading readiness tests were administered during the first four weeks of school. Percentile scores were obtained from the Gates tables for the subtests (Word Matching, Picture Directions, Word-Card Matching, Rhyming, and Letters and Numbers) of the Gates Reading Readiness Test, and from these percentile scores average percentiles were calculated and used as the total reading readiness scores.

TABLE I. Mean reading readiness (RR) scores for groups of children whose speech demonstrated from 0 to 10 errors in articulation.

Articulation Errors	Mean RR Scores	N
0	72.7	163
1	67.9	65
2	67.9	57
3	60.5	38
4	61.5	31
5	49.9	26
6	53.0	17
7	51.5	20
8	55.3	19
9	54.8	17
10	54.0	18

Results

Of the 638 children, 163 were judged to have normal speech. On the speech test, the remaining 475 exhibited from 1 to 78 out of a possible 98 articulation errors. The mean number of errors was 10.7. The data for subjects whose speech was judged to demonstrate

0 to 10 errors and the mean reading readiness score for these groups may be seen in Table 1. A drop of about five percentiles in reading readiness can be seen for the group with one articulation error. Another sharp drop can be seen for the group with three speech errors. The almost steady decrease in reading readiness as the number of speech defects increased is apparent, with variations which can probably be attributed to the smaller numbers of children in each group as the number of errors increases.

The data were arranged in two groups: for normal-speaking children and for children with one or more errors (Table 2, data for each group being presented separately by sex).

TABLE 2. Mean reading readiness scores (in percentile) and group differences for 163 normal-speaking and 475 nonnormal speaking children.

Group	Normal		Nonnormal		Difference
	N	Mean	N	Mean	
Male	77	71.14	257	57.14	14.00
Female	86	74.14	218	57.16	16.98
Total	163	72.72	475	57.15	15.57

The difference in reading readiness between the normal and the nonnormal groups was evaluated by means of the median sign test (16, p. 314). The value of chi square (52.42, 1 df) is significant well beyond the .1% level. Both the high level of confidence and the size of the difference provide evidence to support the original hypothesis that articulatory skill and the variables measured by the reading readiness test are related.

An examination of the data indicates that the mean reading readiness scores tended to decrease as articulation errors increased (Table 1); the skills and capacities measured by the Gates test thus appear to be inversely related to the number of articulatory errors. Accordingly, the product-moment correlation coefficient[1] for estimating the strength of the relationship between the articulation score and the reading readiness score was computed. The co-efficient was -.20, significant at the 1% level. Coefficients computed for boys and girls separately were -.11 and -.10, both of which were just short of significance at the 5% level. The differences between the total group correlation and the within group correlations reflect the pattern which exists among the means for the sex groups on the two variables. Thus much of the total group correlation may be attributed to the mean differences between the boys and girls. Since the square of the coefficient for the total sample indicates only 4% common variance for the two sets of measures, the relationship is not strong. It seemed likely that the variables assessed by the Gates test might not all be related to the early acquisition of speech and that other unmeasured capacities might facilitate early acquisition of speech. Gates (7) wrote that the capacity for listening to the first part of a story and then finishing it is more closely related to reading readiness than the capacities measured in the test. It was not possible to assess this factor with the present data, but an effort was made to determine whether all of the subtests were significantly related to adequate speech.

Product-moment correlation coefficients for estimating the relationship between the articulation scores and the percentile scores on the subtests and total test were as follows: Picture

Directions, -.23; Word Matching, -.10; Word-Card Matching, -.15; Rhyming, -.15; Letter-Number Naming, -.17; and total test, -.20. All coefficients were significant at the 1% level except that for the second subtest, Word Matching, which was significant at the 5% level. All were of about the same magnitude as the coefficient for the total test score. At the 5% level, the confidence limits of any pair of coefficients overlap. Thus it most be concluded that there is no evidence in these data that any one of the subtests is more closely related than the others to the capacity for learning speech.

Finally, the effect of age upon this relationship between the reading readiness measures and the articulation measures was assessed. The sample was divided into a group of 231 subjects under six years and three months old and a group of 244 subjects six years and three months old. The mean reading readiness score for the older group was 60.24 and for the younger group 53.90. This difference was evaluated by means of the median sign test. The value for chi square, corrected for continuity by the Yates formula, was 1.23, significant at about the 25% level.

The strength of the relationship between articulation and reading readiness was compared for the two age-groups by a test of the difference between the product-moment correlations. The coefficients were not significantly different from each other, -.18 ± .03 for the younger group and -.20 ± .03 for the older group. These were interpreted to mean that in these data there was no evidence that age differential had any important effect upon the relationship between speech adequacy and reading readiness.

Discussion

It was not possible from these data to conclude that the presence of an underlying variable causal to the acquisition of both adequate speech and reading had been either confirmed or denied. The large percentile differences in reading readiness between children with normal and children with nonnormal speech confirmed the hypothesis that whatever is measured by the Gates test is related to early speech adequacy. Yet the low correlation coefficient suggested that the strength of the relationship was not great. The size of the correlations remained about the same for the total test score, the subtest scores, different age groups, and sex groups. All of the coefficients were significant but low, except two, which approached significance.

It is possible that the reading readiness test was tapping a part of an underlying capacity which, if better measured, would account for most of the covariance between articulatory skill and reading readiness. It seems more likely that the causes of early speech adequacy and reading readiness are multiple, and perhaps quite differential among subjects.

Only a tentative explanation can be offered for the fact that the mean percentile on the Gates Reading Readiness Test was 61.13 for this sample of 638 first grade children. It is possible that the population used in this study was significantly different from the population used by Gates for the standardization of the test. The effect of this relatively high mean percentile in reading readiness upon the present treatment of the data is not known.

Summary

A speech articulation test and the Gates Reading Readiness Test were administered to 638 children in grade one during the first four weeks of school. On the basis of the data obtained, the following statements seem to be justified:

Reading readiness and acquisition of adequate speech are to some extent related, although the proportion of variance common to reading readiness measures and articulation measures is quite small. It is possible that the Gates Reading Readiness Test measures part of an underlying variable causal to the acquisition of both reading and speech.

The strength of the relationship between reading readiness and articulatory skill in grade one seems to be about the same for each of the Gates subtests and for two age groups, one younger than six years and three months and the other older.

REFERENCES

1. Artley, A.S., A study of certain factors presumed to be associated with reading and speech difficulties. J. Speech Hearing Dis., 13, 1948, 351-360.

2. Bennett, C.C., An Inquiry into the Genesis of Poor Reading. No. 755, Teacher's College Contributions to Education. New York: Columbia Univ., 1938.

3. Betts, E.A., Foundations of Reading Instruction with Emphasis on Differentiated Guidance. New York: American Book, 1957.

4. Binder, A., Considerations of the place of assumptions in correlational analysis. Amer. Psychol., 14, 1959, 504-510.

5. Bond, G.L., The Auditory and Speech Characteristics of Poor Readers. No. 657, Teacher's College Contributions to Education. New York: Columbia Univ., 1935.

6. Gates, A.I., The Improvement of Reading; A Program of Diagnostic and Remedial Methods, (3rd. Edition) New York: Macmillan, 1947.

7. Gates, A.I., Manual of Directions for Gates Reading Readiness Tests. New York: Columbia Univ., 1942.

8. Hall, Margaret E., Auditory factors in functional articulatory speech defects. J. exp. Educ., 7, 1938, 110-132.

9. Henry, Sibyl, Children's audiograms in relation to reading attainments: Ill. Discussion, summary, and conclusions. J. genet. Psychol., 71, 1947, 49-63.

10. Hildreth, Gertrude, Interrelationships among the language arts. Elem. School J., 48, 1948, 538-549.

11. Jackson, J., A survey of psychological, social, and environmental differences between advanced and retarded readers. J. genet. Psychol., 65, 1944, 113-131.

12. Mase, D.J., Etiology of Articulatory Speech Defects. No. 921. Teacher's College Contributions to Education. New York: Columbia Univ., 1946.

13. Monroe, M., Children Who Cannot Read; The Analysis of Reading Disabilities and the Use of Diagnostic Tests in the Instruction of Retarded Readers. Chicago: Univ. Chicago Press, 1932.

14. Moore, C.E.A., Reading and arithmetic abilities associated with speech defects. J. Speech Dis., 12, 1947, 85-86.

15. Moss, Margery Anne, The effect of speech defects on second grade reading achievement. Quart. J. Speech, 24, 1938, 642-654.

16. Mosteller, F., and Bush, R.R., Selected quantitative techniques. In Gardner Lindzey, Handbook of Social Psychology. Cambridge: Addison-Wesley, 1954.

17. Robinson, Helen, Why Pupils Fail in Reading. Chicago: Univ. Chicago Press, 1946.

18. Travis, L.E., Speech Pathology; A Dynamic Neurological Treatment of Normal Speech and Speech Deviations. New York: D. Appleton, 1931.

SOCIOLOGICAL AND PSYCHOLOGICAL FACTORS ASSOCIATED WITH HEARING LOSS

McCay Vernon

Michael Reese Hospital, Chicago, Illinois

Existing research on the psychological and sociological conditions of the severely hearing impaired is surveyed. These data reveal an essentially normally distributed intellectual potential and cognitive capacity. However, data on the educational achievement and level of vocational attainment indicate that the hearing-impaired population is grossly below national averages. These data on achievement stand in stark contrast to the findings on potential.

The failure of aural rehabilitation and education to provide appropriate programs and opportunities is seen as the primary reason for this discrepancy. More specifically, existing research indicates that education's rigid adherence to a teaching methodology limited to speech, amplification, speechreading, and printed symbols instead of one that uses these techniques in conjunction with fingerspelling and the language of signs has impaired the deaf child's educational progress by limiting his chance to learn. To plan realistic rehabilitative and educational programs, professional specialists must be familiar with results, that is, the deaf adult.

Data on marriage patterns, organizations, mental illness, and communication among the hearing-impaired are presented. Certain myths, such as the "hearing vs. deaf world," are discussed.

These data are then related to research on trends in competitive employment and the future occupational picture.

No groups are more instrumental in establishing the attitudes that determine the sociological and psychological adjustments of deaf persons than the professional groups having members in the American Speech and Hearing Association. Paradoxically, however, few members of the professional specialties represented in ASHA have had more than superficial contact with adult deaf persons. To be specific, those who have the professional power that exercises primary control over the eventual sociological and psychological fate of adult deaf people frequently have little or no experience with the adult deaf population or firsthand knowledge about it.

This inexperience is characteristic of rehabilitation services for deaf persons in the same sense that the poverty programs characteristically are staffed by members of the middle class who have only theoretical knowledge of what it is to be poor, the Indian reservations typically have non-Indians in positions of authority, and only recently have Negroes assumed significant roles in programs to improve their situation. We have but to look at the sociological and psychological state of the Indian, the Negro, the poor, and the deaf to realize the price paid when the rehabilitation of minority groups does not give voice to, or listen to, the members of the group being "helped." By contrast, minority groups such as the Mormons, Jews, and Irish have prospered psychologically and sociologically, not by virtue of having had outsiders controlling their "habilitation and rehabilitation," but by being in a position to do it themselves.

The American Speech and Hearing Association does not choose nonmembers to represent it in Washington. The American Psychological Association chooses psychologists, not psychiatrists, to represent its interests. By contrast, Negroes, deaf persons, and Indians are rather specifically discriminated against in their efforts at full participation in determining their own fate. Granted normal-hearing persons will always constitute the major segment of the professional community in aural rehabilitation. The points to be made are that deaf people should be given opportunities to assume these roles, hearing persons in aural rehabilitation should know more about the adult deaf, and the views of adult deaf people should be given an audience and an authority.

This paper will present the results of present policies of aural rehabilitation, policies which have ignored the thinking and leadership of the deaf community. Data about key psychological and sociological variables as they are manifest in the deaf population will be summarized. The variables chosen are as follows:

1. intelligence and cognitive capacities
2. educational level
3. vocational adjustment
4. marriage patterns
5. organizations of deaf adults
6. hearing world vs. the deaf world
7. mental illness
8. communication
9. the future

Rather than a conventional summary, the implications of these and other data for the future of deaf persons will be discussed.

For the purpose of this paper deafness will be briefly defined as follows: A person is educationally and socially deaf when he cannot understand conversational speech in most situations and when the onset of the hearing loss was prelingual or early in life. The distinction between this and some definitions of audiological deafness is crucial. A failure to grasp fully the difference leads to much of the confusion, misunderstanding, and denial of deafness which has proven so destructive over the years.

INTELLIGENCE AND EDUCATION

Intelligence and Cognitive Capacities

The intelligence of deaf and hard of hearing persons has been studied extensively since the advent of IQ tests in the early 1900s. Based on this research representing approximately 50 independently conducted investigations, it is clearly evident that the deaf and hard of hearing population has essentially the same distribution of intelligence as the general population (Vernon, 1968b). There is no causal relationship between hearing loss and IQ. The lay public and the professional's occasional association of hearing loss with "dumbness" or stupidity is without basis in fact. It rests either upon the age-old fallacy of assuming the lack of speech to be related to the absence of advanced cognitive process or the equally invalid assumption that the difficulties deaf and hard of hearing people often experience with written language reflect their intelligence instead of simply their lack of exposure to language through hearing.

Another and perhaps more sophisticated fallacy is that deaf and hard of hearing persons have a lowered capacity for abstract thought. Research on the relationship of language to thought as it is manifested in deaf and hard of hearing persons shows clearly that the potential for abstract thought is as prevalent among deaf people as among the hearing (Furth, 1966, pp. 222-228; Lenneberg, 1967; Vernon, 1967b). Perhaps the best example of this is the number of deaf mathematicians (Rose, 1969).

There are cases of hearing loss where the disease or condition causing the hearing loss sometimes leaves residual brain damage which affects intelligence and thought patterns. Examples of such conditions are meningitis, complications of Rh factor, premature birth, maternal rubella, and certain genetic syndromes (Hardy, 1965; Hardy, Monif, and Sever, 1966; and Vernon, 1967a, c, d, e, f, 1968a, and 1969a). In the minority of deaf children who have the combined handicaps of auditory impairment and chronic brain syndromes, one would naturally expect a somewhat lowered overall IQ.

Educational Level

The educational achievement of deaf persons and many who are hard of hearing stands in sharp and ironic contrast to the facts established with regard to their intelligence. Although some become Phi Beta Kappas or Ph.D.'s, the average deaf adult is grossly undereducated. This is, for the most part, an indictment of the educational system, which has failed to develop the intellectual capacity of deaf students, and to some extent an acknowledgment of the tremendous impediment to academic learning represented by profound hearing loss.

The most extensive current survey of the educational achievement of the deaf (Table 2) included 93% of deaf students 16 years or older in the United States (Boatner, 1965; McClure, 1966). Only

5% achieved at tenth grade level or better (most of these being hard of hearing or adventitiously deaf), 60% were at grade level 5.3 or below, and 30% were functionally illiterate.

Another study, by Wrightstone, Aronow, and Moskowitz (1962), based on 73 school programs for the deaf and representing 54% of all school-age deaf children 10 to 16 years of age, reports reading scores on the Metropolitan Achievement Tests. Eighty-eight percent of the 16 year olds were below grade 4.9 in reading. Furthermore, the average gain in reading from the age of 10 to the age of 16 was less than one year (Grade level 2.6 to 3.4).

Schein and Bushnaq's (1962) study showing the appallingly small percentage of deaf youth who are able to enter college; the Babbidge Report (1965) of the Health, Education, and Welfare Department's Advisory committee which documented nationally the lack of success of the education of the deaf; and the Kohl (1966) investigation are among the many which provide hard factual data proving that deaf children are being failed educationally. In fact, the psycholinguistic research of Moores (1967) indicates that most of the above studies yielded spuriously favorable results because they were based on standardized educational achievement tests, which fail to fully diagnose the language retardation of deaf students. Furthermore, many students who were dropped from the schools surveyed for academic failure were not even included in the sample, nor were many of the small isolated day classes that do the poorest job educationally.

Thus, despite having the potential to learn, deaf youth are not being given adequate appropriate opportunity to do so. The crippling psychological and sociological implications of this sort of educational deprivation are to a major extent self evident. The

TABLE 2. Studies of the educational achievement of deaf children.

Investigator	Sample	Results
Boatner (1965) and McClure (1966)	93% of deaf students in U.S. age 16 or older	1) 30% functionally illiterate 2) 60% grade level 5.3 or below 3) Only 5% achieve at 10th grade or better and most of these are deaf or hard of hearing
Wrightstone, Aronow, and Moskowitz (1962)	73 school programs for deaf representing 54% of deaf school children, ages 10 to 16	1) Average gain in reading from ages 10 to 16 less than one year (0.8 months) 2) Average reading achievement of 16-year-olds was grade level 3.4. 3) 80% of 16-year-olds were below grade level 4.9 in reading
Schein and Bushnaq (1962)	Gallaudet College population and estimates of other deaf college students	1) 1.7% of deaf school age population attend compared to 9.7% of hearing school age population
Babbidge (1965, p. 23)	269 schools and classes 23,330 deaf children, 76% of deaf school age children	1) Median average on Stanford of school leavers is 5.9 2) 13% of students "left" at age 16 or before 3) About 3% were denied admission.
	90% of residential school pupils and 57% of private residential pupils. Day classes and schools not represented	4) Waiting list for residential schools was 3.6% of enrollment, for private schools 48.5%

even more dismal vocational and professional implications for the future will be discussed later.

High hopes are now being held forth that additional preschool oral education may be the answer to present educational deficiency. Research on actual effects of oral preschool programs (Craig, 1964; Phillips, 1963) fails to support such hopes (Table 3). These two independently conducted investigations, which included a large percentage of Eastern oral preschool programs, indicated that by the time the children who had had oral preschool training had been in school a few years the effects of their training had washed out and they were at no higher educational level than matched groups who had not had preschool exposure.

TABLE 3. Results of oral preschool education.

Investigator	Sample	Results
Craig (1964)	101 deaf children in control group, 151 deaf children in experimental group (Western Pennsylvania School, American School, and others).	No significant differences in speech reading and reading after a few years in school.
Phillips (1963)	Preschool deaf children and controls from Eastern U.S. Schools including Lexington School, American School, and others	No significant difference between preschool and non-preschool groups in academic achievement by age 9.

By contrast, several extensive research studies (Meadows, 1967; Montgomery, 1966; Stevenson, 1964; Quigley and Frisina, 1961; Quigley, 1969; Stuckless and Birch, 1966; Vernon, 1969) have shown that children with early manual communication not only are more advanced when they enter school, but maintain this advantage throughout their school-age years (Table 4). The work in Russia using fingerspelling (Morkovin, 1968); the observations of psycholinguists like Eric Lenneberg (1967); psychiatrists such as Eugene Mindel (1968), John Denmark (1968), and Robert Sharoff (1959); and psychologists including Hans Furth (1966) lend additional support to the strong case being built by research in deafness. The application of information from other fields also supports the use and the value of manual communication along with oral and auditory approaches for improving the presently intolerable failure to educate deaf children adequately.

The educational superiority of deaf children with early manual communication is striking considering that in all but one of the studies reported (Table 4) these children had deaf parents. These deaf parents had the educational and linguistic retardation characteristic of the deaf population (Table 2) (Moores, 1967). By contrast the deaf children who had early oral training had parents with normal hearing and, therefore, had a far superior level of academic achievement and linguistic competence (Vernon, 1969a).

While many educators of deaf children and some speech and hearing specialists are emotionally and psychologically unable to accept and apply methods other than oralism in isolation from manualism, there seems to be an overall increasing open-mindedness and desire to let factual information contribute to helping deaf children learn. In view of the established inadequacy of existing systems, the need for constructive change is self evident. If we realize that the issue is not oral versus manual education, but a combined oral and manual approach as contrasted to using techniques

TABLE 4. Results of early manual communication

Investigator	Sample	Results
Stuckless and Birch (1966)	105 deaf children of deaf parents (manual group) 337 matched deaf children of hearing parents (oral group)	1) No difference in speech 2) Early manual group better in speechreading 3) Early manual group better in reading (0.5 months) 4) Early manual group better in written language 5) Early manual group possibly better in psychosocial adjustment
Montgomery (1966) *	59 Scottish Children	Exposure to, use of, and preference for manual communication did not negatively affect speech or speech reading skills
Meadows (1967) +	56 deaf children of deaf parents (manual group) 56 matched deaf children of hearing parents (oral group)	1) Manual group better in reading (2.1 years) 2) Manual group better in math (1.25 years) 3) Manual group better in overall educational achievement (1.28 years) 4) Manual group better in social adjustment 5) No differences in speech and lipreading 6) Manual group better in written language

TABLE 4. (continued)

Investigator	Sample	Results
Stevenson (1964)	134 deaf children of deaf parents (manual group) 134 deaf children of hearing parents (oral group)	1) 90% of manual group did better than matched oral students 2) 38% of manual group went to college vs 9% or oral group
Quigley and Frisina (1961)	16 nonresidential deaf children of deaf parents (manual group) 16 nonresidential children of hearing parents (oral group)	Manual group better in vocabulary, the same in speechreading, and better in educational achievement. Oral group better in speech.
Quigley (1969) ‡	16 matched pairs of deaf children. All had normal-hearing parents. One group was given fingerspelling and oral education starting at about age 3. The controls had oral education without fingerspelling	1) Fingerspelling group superior in speechreading 2) Fingerspelling group had superior written language 3) Fingerspelling group had superior reading skills 4) No measure of speech intelligibility

* This study did not specifically involve preschool manual communication.

+ The sample size varied depending on variables measures.

‡ Quigley, S.P., The influence of fingerspelling and the development of language, communication and educational achievement in deaf children. Mimeographed report, Dept. Special Ed., Univ. of Ill., Champaign (1969).

limited only to the oral method, perhaps the controversy can be dealt with more objectively. Were it not that education is a crucial determining variable in all other psychological and sociological aspects of the lives of deaf people, it would not be necessary to detail this area as extensively as has been done. Changes must be made in education before they can be expected elsewhere.

SOCIAL FACTORS

Vocational Adjustment

Despite having the same intelligence as hearing people, deaf people frequently enter into manual labor of varying skill levels because they have no opportunity to engage in appropriate higher level employment. For example, approximately 80% of the deaf are in some form of manual labor as contrasted to half of the general population.(Boatner, Stuckless and Moores, 1964; Kronenberg and Blake, 1966; Rainer, Altshuler, Kallman, and Deming, 1963; Lunde and Bigman, 1959). Only 17% of deaf people do white collar work, compared to 46% of the general population. This is due primarily to failure of the educational system to provide the deaf person a chance to develop his intelligence constructively and to use it vocationally.

Marriage Patterns

Ninety-five percent of deaf persons marry other deaf persons, the exceptions generally being those who are hard of hearing or those who become deaf later in life. This is understandable. In most cases it represents a healthy adjustment to deafness. These marriages are basically stable; however, there is a slightly higher percentage of unmarried persons among the deaf, due, in part, to the somewhat high ratio of men to women among the deaf (Rainer et al., 1963).

Organizations of Deaf Adults

Deaf adults make conscientious efforts not to leave responsibility for their welfare in the hands of others. They have formed strong organizations to meet social, psychological, and legislative needs. These groups play an integral part in the lives of deaf persons.

The National Association for the Deaf, consisting of over 10,000 members is the most prominent. There are chapters in every state, a permanent office in Washington, and national meetings are held regularly. This organization does much constructive work for deaf people. For example, it actively protects and represents bona fide interests of the deaf and organizes cultural, athletic, and social events.

The National Fraternal Society, whose membership also exceeds 10,000, is an insurance company, established and managed by deaf people. It provides life insurance at reasonable rates for its deaf membership and conducts social and fraternal functions.

Every state has an association of deaf persons, large cities have clubs, there is a deaf olympics, and there are deaf theatrical groups and many other similar organizations. These are formed by deaf persons for deaf persons. Another organization, the Oral Deaf Adult Section, consisting of about 250 members, is a subgroup of the Alexander Graham Bell Association for the Deaf. This group promotes the teaching of speech and speech reading. The Gallaudet College Alumni Association is a worldwide organization of former students of Gallaudet, until recently the world's only college for the deaf.

One of the paradoxes of adult organizations of deaf people is the presence of "oral" clubs and "lipreaders" clubs. The basic philosophy of oralism is that it will enable the deaf person to integrate with the nondeaf. Hence, the need and existence of clubs exclusively for so called "oral" deaf adults is testimony to the failure of most of these persons to fit into close social interaction with the normal hearing. At these club meetings, deaf members try to "talk" and to speechread with other deaf persons.

These organizations, large and small, national and local, play a truly important role in the lives of all deaf persons. Their leaders and members know more about the implication of deafness than anyone. Yet, aural rehabilitationists who have so much to say about the deaf person's education and status in society almost never consult the deaf or have the contact with them that is required to grasp the problems of deafness. An analogous situation existed with blind leaders of organizations for the blind who fought for over a hundred years for braille so that they might read. Sighted people opposed the idea, ignoring the views of the blind themselves and claiming that the blind must read raised printed letters that were copies of the letters sighted people read. Finally a blind man, Louis Braille, found influential people who would listen to him, and the system of braille was developed. Thus the blind were enabled to read and now they do well educationally. A breakthrough wherein hearing professionals attend to the ideas that deaf people have for their own welfare has yet to achieved. The deaf are still forced to "real raised printed symbols." Certainly if professionals in deafness had extensive experience with the adult deaf, regardless of the age of the deaf persons with whom they work, these problems would not continue.

Unfortunately, not all organizations for deaf adults fulfill constructive roles. Throughout the Unived States semi-organized, quasi-criminal groups exist which promote what is called "peddling" but what is actually begging. The activity usually involves a deaf person approaching groups of hearing persons in bars, restaurants, etc., with cards showing the manual alphabet or with some other trinket to which is attached the message "I am deaf and cannot work. Please buy this." This form of begging usually involves organized groups or gangs, many of which travel all over the United States. Generally the leaders are intelligent, unscrupulous deaf persons who control and exploit weaker or retarded deaf youths. Sometimes individual sociopathic deaf peddlers operate independently.

Such peddlers may gross up to $600 a week. The deaf community holds in contempt these beggars who do not work and who create a bad impression of other deaf people. The National Association for the Deaf has attempted to legislate against peddling, and professionals in deafness render a service when they discourage or report to the authorities these deaf beggars. If we in aural rehabilitation did a better job the root of the peddling problem would be greatly reduced and punitive measures would not be needed.

Hearing World Versus the Deaf World

Without doubt, the most common misconception among professionals in deafness is that a deaf person enters either a "hearing" world or a "deaf" world. This false dichotomy is used to frighten parents into unrealistic programs and to justify outlandish educational endeavors.

Actually, there is no either/or dichotomy. Most deaf people work with hearing people. Work is task oriented and in the case of the deaf person generally does not require much oral communication. Most deaf people, in fact, write on the job to avoid confusion (Lunde and Bigman, 1959). Socially, most deaf people prefer other deaf people, as indicated by the fact that 95% of their marriages are to deaf persons. This is natural and healthy. Why would anyone choose to be with people with whom they could communicate only with great difficulty? Although most close social contacts are with other deaf people, the deaf adult usually has some close hearing friends at work and among his neighbors at home.

The issue is that deaf people are not forced into a choice of a "deaf" versus a "hearing" world any more than the Rotary Club member is forced to choose between a Rotarian or a non-Rotarian world, than the American of Greek descent is forced into a "Greek" world if he decides to learn the Greek language, than a Jewish youngster who wants to learn Hebrew is forced into a "Jewish" world. Granted many ethnic, social, and professional groups prefer primary social interactions with their own. Why should deaf persons not have similar desires and be permitted to exercise them without mystical suggestions on our part that they are leaving "the hearing world"? It just may be that our egocentric view that everyone would prefer our company is wrong. Deaf people may prefer the company of other deaf people.

PSYCHOLOGICAL FACTORS

Mental Illness

Psychosis. One approach to understanding the psychology of deaf people is to examine the nature and degree of mental illness among them. Studying the pathological is a traditional and effective approach to understanding normal function.

The only extensive reported study of psychotic illness among the deaf is that done in New York State by Rainer et al. (1963). This group has examined and compared the kinds of psychotic illness present among the deaf patients in state hospitals to that found among the other patients. Their major finding was that schizophrenia, which accounts for over half of all hospitalized psychotic patients, was not significantly more common among the deaf admissions to the hospitals than among the hearing admissions. However, the deaf patients tended to stay in state hospitals longer. Their communication problems made them custodial, not treatment, cases (p. 202).

An atypical finding about the deaf psychotic population was that 5% of those in the state hospitals surveyed had retinitis pigmentosa (Usher's Syndrome), a genetic condition involving deafness, progressive blindness, and aphasoid problems (Vernon, 1969b). Sometimes mental deficiency was present also (p. 201).

The Rainer study did not substantiate the age-old concept that paranoid schizophrenia and generalized paranoid patterns are more common among the deaf than the hearing. The low percentage of the deaf having severe endogenous depression was another finding in contrast to folklore about traits of deaf people (p. 201).

Based on this extensive study of a well selected sample of the New York State deaf population, the conclusion was that psychotic processes such as schizophrenia were essentially the same among the deaf as among the hearing. Certain kinds of genetically related organic psychoses, impulse control disorders, and primitive personality development were more common in deaf mentally ill persons. Alcoholism and depressive psychoses were less prevalent.

Matzker (1960) in Germany, in contrast to the New York group, found schizophrenia more common among the deaf, but his study was far less rigorous. He also included cases of hearing loss associated with aging (presbycusis). The presbycusic represent a group much different from the deaf referred to in the New York study.

At the Psychosomatic and Psychiatric Institute for Research and Training of the Michael Reese Hospital and Medical Center, research on psychosis and deafness has been in process for three years. The clinical impressions from the initial stages of this work indicate that although paranoid schizophrenia may not be more prevalent among the prelingually deaf, it may be more frequent among the adventitiously deafened and the hard of hearing than among the general population.

Lesser Mental Illnesses. Little is known about neurosis, character disorders, and other mental problems not considered psychoses. These kinds of disorders are not easy to identify in a deaf population. Thus far the only effort to do this has been through the outpatient clinic of the New York Project in a series of several related investigations.

One, a study of 51 deaf law offenders (Rainer et al., 1963, p. 143) indicated that the largest number, 19, were sex offenders, 8 were charged with assault, 7 with disorderly conduct, and the rest were booked for burglary and theft, murder, manslaughter, forgery, and dope peddling. Misdemeanor charges involved vagrancy, reckless driving, shoplifting, and bookmaking. These findings are difficult to interpret, as the sample is not known to be either representative or random and no baseline data is provided for comparison.

Major problems in the total New York outpatient clinic population were acute psychiatric illness, homosexuality, poor work adjustment, social conflicts, and family problems (Rainer, pp. 156-

157). Schizophrenic illness accounted for 57.5% and passive-aggressive personality disorder for 20.4% (mostly passive-dependent type). Overt homosexuality, usually in the characterologic framework of a dependent personality, was the predominant feature in 11.4%. Other common syndromes were antisocial reactions and "primitive personality" (p. 157). This last category is a nosological term used specifically for certain types of deaf patients in whom there is normal intellectual potential coupled with an almost total lack of verbal or manual language. The response of these patients to everyday events is as if there is a continual emergency. Terje Basilier (1964), the Norwegian psychiatric authority on deafness, covers this syndrome and a number of other reactions to congenital deafness under a broader rubric - surdophrenia.

With reference to the communication difficulties imposed by deafness, Rainer and his colleagues found that over three-fourths of deaf patients could not even be approached in treatment except by using the language of signs (p. 160). This was true despite the fact that a high proportion were college educated (p. 163).

Brain damage plays a major role in a significant number of the behavior disorders in deaf persons. Rainer et al. noted its role in psychoses in their discussion of retinitis pigmentosa. Vernon (1961; 1967 a, c, d, e, f; 1968a; and 1969a), in a series of articles on sequelae of major causes of deafness, has demonstrated that the organic residua of these etiologies account for an appreciable amount of both psychotic and less mental disorder.

A few tenuous generalizations can be drawn from the few studies reported and from my clinical experience. First, impulse control problems and their related syndromes are more common among the deaf. Second, there is frequent lack of insight, with externalization of blame for psychosocial difficulties. As a result, conscious anxiety is not present as frequently and motivation for treatment is sometimes minimal.

COMMUNICATION

The major handicap of deafness is the resulting impairment of communication. Thus, an approach to the psychological and sociological functioning of deaf persons must carefully examine communication as it relates to people who are deaf, I will do this first by considering basic aspects of communication - speech, speechreading, writing, fingerspelling, and the language of signs.

Speech. Most of us took a foreign language in college and recall how difficult it was to learn to speak it even though we could hear and monitor our own voices and articulations as we spoke. The few of us who may have done well by classroom standards soon found out how unintelligible we were if and when we had occasion to depend on our skills in travels to foreign lands.

If we try to imagine the problem we would have trying to learn to speak a foreign language if we could not hear and monitor our voices or if we could get only partial and imperfect feedback, we have at least some concept of the problem and limits the deaf person has with speech.

As a consequence of the difficulties involved in learning to speak when deaf, few persons prelingually deafened - 95% of the school-age deaf population - develop speech that can be understood in most social situations (Vernon, 1968a). Professionals in deafness tend to ignore this rather unpleasant fact and proceed with deaf children as though the fact did not exist.

Speechreading. The studies of the Tracy Clinic (Lowell, 1957-1958, 1959) illustrate the problem of speechreading for deaf persons. They found that nondeaf college sophomores who never studied speechreading were better at it than deaf children and adults to whom it had been taught for most of their school lives. The reason for the superiority of the sophomores was that they had a solid language base (syntax and vocabulary) which enabled them to fill in by guessing the words they could not speechread. As 40 to 60% or more of the sounds of English are homophenous, that is, they look like some other sound on the lips, a person who lacks the language base to fill in the gaps understands very little. In fact, the best speechreaders in a one-to-one situation understand only 26% of what is said (Lowell 1957-1958, 1959). Many bright, otherwise capable deaf children grasped less than 5%. Yet we continue to use speechreading as the major modality for instruction and communication with deaf children. For those of us who have normal language patterns this would be an almost impossible educational task. To the deaf child without a language base it is even more unrealistic.

Language (reading and writing). The evidence already cited in the education section of this paper shows that 30% of deaf children are functionally illiterate, their average gain in reading from age 10 to age 16 is less than a year, and their command of language expressively and receptively is even below this. Thus, communication by reading and writing is a severely limited outlet for the majority of deaf persons.

Fingerspelling and the Language of Signs. Deaf persons who know the language of signs and fingerspelling do not have the problems of ambiguity inherent in speechreading, nor must they experience the difficulties of articulation that characterize their efforts to talk. Thus they are able to communicate fluently with deaf peers and hearing persons who know manual communication. It also has been observed that deaf aphasics unable to learn oral or written language can develop reasonable skill in the language of signs.

Summary. Psychologically and sociologically the significance of data presented on communication is crucial. It means that most parents do not communicate with their deaf children except at the most superficial level unless they learn manual communication, and very few do. Hence, information on ethics, on how to get along in the world, on the importance of education, on career planning, on ad infinitum which parents should provide children, deaf youth do not get. This lack of parent-child communication is devastating psychologically and sociologically. Rainer and Altshuler (1963) discuss its effects relative to mental illness and we at the Psychosomatic and Psychiatric Institute of Michael Reese Hospital see family after family in which the deaf menber is almost a total isolate. In these families the deaf child often is unable to speak, speechread, or write effectively. Yet the parents have been and still are advised by "professionals" in deafness not to teach fingerspelling or the language of signs.

School programs throughout the United States are turning out a high percentage of deaf students who at ages 16 and up have no means of adequate communication and who have been denied peer, parent, and teacher interactions and resultant knowledge and human interaction that would have been possible had they had a combined manual-oral education. Vocational rehabilitation facilities are having to take these unfortunate persons and first teach them manual skills in order that they have some means of communication. Then efforts are made to fill in all that has been lost over the crucial earlier years. Obviously these deaf persons cannot as adults be given all that they were denied as children. The psychological and sociological result is that many deaf adults function in our society as isolates, ignorant of much about the world in which they live. This does not have to be and should not be the case, but until we face realistically the communication problem of deaf people the situation will remain.

What are the implications of these psychological and sociological data about deaf persons? What do they mean for the future?

EMPLOYMENT TRENDS AND THE DEAF

Basic to practical psychological and sociological planning for the future is a clear picture of current employment trends and an understanding of their implications for deaf people. Unless this planning occurs and changes in education and training are brought about, John A. Sessions (1966), labor authority of the AFL-CIO, predicts that within 10 years unemployment among deaf workers will approximate 70% and most of the remaining 30% will be dead-ended in various unskilled and menial jobs. What are the major trends in our contemporary society and in its predictable future that would have such a catastrophic effect on the deaf person? What kind of aural rehabilitation can counteract the effect of these changes?

The White-Collar Trend

The shift is to many more white-collar jobs; to relatively fewer manual, semiskilled, and unskilled kinds of work; and to relatively fewer blue collar positions (Cooney, 1967; Friedman, 1967).

Only 17% of the deaf are in white-collar work as contrasted to 46.8% of the general population (Crammatte, 1962; Lunde and Bigman, 1959; Friedman, 1967; Rosenstein and Lehrman, 1963; Vernon, 1962). Furthermore, manufacturing, where over half of the employed deaf work (Lunde and Bigman, 1959; Rosenttein and Lehrman, 1963) is an area of decreasing opportunity. Not only is the overall number of jobs in manufacturing not expected to keep pace with the general economy, but the proportion of white-collar workers in manufacturing increased from 16% in 1947 to 25% in 1966 with strong evidence for an even greater shift to this direction in the future (Cooney, 1967; Friedman, 1967). As indicated earlier, the deaf are in the manual occupations related to production, not in the white-collar positions, such as accounting, engineering, science, teaching, and technology, where in the past there have been almost no deaf people.

The Urban Shift

Seventy percent of Americans now live in the cities and suburbs as compared to the recent past when the proportion was about half, and 1900, when it was 37% (Friedman, 1967). This urbanization of population imposes certain hardships upon the deaf, but from other points of view it offers one major advantage. With deaf people centralized, it becomes feasible to provide them professional-level counseling by staff who are specifically qualified in manual communication and general knowledge about the meaning of deafness in employment. In the past, the deaf were so widely scattered that such specialists were not practical because most of their time would have been spent in travel. Consequently, the deaf client often had a counselor who was unqualified to provide competent services.

The Technological Revolution

Advancing technology is drastically changing the world of work. Of the 22,000 jobs listed in 1965, over 6,000 were new since 1959 and over 8,000 that had existed then were extinct (Friedman, 1967). This has a number of implications. First, it means that flexibility and the capacity to be retrained are primary requirements for vocational survival. Because of the communication and educational problems involved in profound hearing loss, the deaf often have great difficulty in regular retraining programs. Hence, they are relatively inflexible vocationally. Second, it is no longer reasonable to expect to prepare a deaf person for a job when he is young and expect him to be able to rely on these same skills for employment the rest of his life. Counselors must recognize the need for special programs to retrain older deaf workers, men with families and financial responsibilities.

Demand for Services

Employment in the service sector will experience by far the fastest growth (Cooney, 1967; Friedman, 1967; Oswald, 1967). For example, the number of jobs in state and local government will jump 48%. Miscellaneous service industries, such as educational activities, health and medical care, recreation, hotels, businesses, and repair services, will experience similar increased demands, and this trend will continue (Cooney, 1967). One out of every two new jobs created in the past decade has been in the service industries. The meaning of all this to the deaf is far from encouraging. Civil service examinations usually require a language skill far beyond a large majority of the deaf, which means this area is relatively closed (Rose, 1967; Vernon, 1962). In the miscellaneous service industries from 55 to 88% of the positions are white-collar jobs. This is the very area in which the deaf are currently least well represented and (presumably) least well prepared by aptitude and training (Lowell, 1965). For example, 10% of workers in the service industries have managerial positions, from which the deaf are almost totally excluded (Crammatte, 1962; Kronenberg and Blake, 1966), and 55% hold professional, technical, or clerical jobs far removed from the manual type of labor in which 65 to 80% of the deaf are engaged (Babbidge, 1965; Friedman, 1967).

Educational Requirements

Educational requirements for employment are rapidly increasing. The average worker today spent 33% more years in school than his predecessor and this trend is increasing (Friedman, 1967). The number of jobs open to the functionally illiterate, which includes at least 30% of deaf school alumni (Boatner, 1965; McClure, 1966), is rapidly shrinking and in their place are jobs requiring at least a high school education. Often even the jobs the illiterate can do are not open to them, because when industry hires it wants flexibility in a worker and, therefore, often demands at least a high school education (Craig and Silver, 1966; Friedman, 1967; Vernon, 1962). The increase in white-collar employment means more education and more skill will be required. Even among the blue-collar workers it is the highly trained craftsman who is in demand.

These five major employment trends create for the deaf population a vocational crisis. What place is there in the future for a population 30% of whom are functionally illiterate, only 5% of whom achieve a tenth grade academic level, and 60% of whom are fifth grade or below in educational achievement (Boatner, 1965;

McClure, 1966) when there is the additional communication problem due to deafness?

The problem is not irresolvable, as it might appear to be. Deaf and hard of hearing people have the same intelligence as the normal hearing (Vernon, 1968a), their work habits are good (Vernon, 1962), and employers who hire them like them (Furfey and Harte, 1964). The answer lies in using the potential that is there and has been largely untapped (Williams, 1958, 1965). It lies in providing educational opportunities that - through such means as manual communication, audiovisual techniques, and qualified specialists - become opportunities in the true sense of breaking through the communication barrier of deafness and freeing the intellectual capacity of the deaf person. This - coupled with counseling that helps the deaf client to match his unique combination of assets, liabilities, and interest with appropriate vocation, considering current and projected employment demands - can overcome what is otherwise an extremely dim prognosis. If Sessions' prediction (1966) that within 10 years unemployment among deaf workers will approximate 70% and that most of the remaining 30% will be dead-ended in various unskilled jobs is to be proven false, it will require genuine aural rehabilitation in the broadest sense, rehabilitation involving the participation of deaf persons in the planning and executive roles.

ACKNOWLEDGMENT

This investigation was supported in part by Research and Demonstration Grant No. RD-2407-S from the Rehabilitation Services Administration, Department of Health, Education, and Welfare.

This paper was presented at the Institute for Aural Rehabilitation, Denver, Colorado, July, 1968.

The author is now a Professor of Psychology at Western Maryland College, Westminster, Maryland.

REFERENCES

Anderson, R.M., Stevens, G.D., and Stuckless, E.R., Provision for the education of mentally retarded deaf students in residential schools for the deaf. Unpublished doctoral dissertation. Univ. Pittsburgh (1966).

Babbidge, H.D., Education of the deaf: A report to the Secretary of Health, Education, and Welfare, by his Advisory Committee on the Education of the Deaf, Department of Health, Education, and Welfare, Washington, D.C. (1965).

Basilier, T., Surdophrenia: The psychic consequences of congenital or early acquired deafness. Some theoretical and clinical considerations. Acta Psychiat. Scan., Suppl. 180, 40, 362-274 (1964).

Bishop, Helen M., The testing of deaf and hard-of-hearing children in St. Paul schools with the Arthur Performance Scale, Natl. Educ. Assn. Proc., 74, 393-394 (1936).

Boatner, E.B., The need of a realistic approach to the education of the deaf. Paper presented at the joint convention, Calif. Assn. Teachers of the Deaf and Hard of Hearing, and the Calif. Assn. of the Deaf (November 6, 1965).

Boatner, E.B., Stuckless, E.R., and Moores, D.F., Occupational Status of the Young Adult Deaf of New England and Demand for a Regional Technical-Vocational Training Center. West Hartford, Conn.: Amer. School for the Deaf (1964).

Brill, R.G., The relationship of Wechsler IQs to academic achievement among deaf students. Except. Child., 1962, 28, 315-321.

Burchard, E.M., and Myklebust, H.R., A comparison of congenital and adventitious deafness with respect to its effect on intelligence, personality, and social maturity. Part I. Intelligence. Amer. Ann. Deaf, 87, 241-250 (1942).

Cooney, R.B., Loosening the white collar. AFL-CIO Amer. Federationist, 74, 19-23 (1967).

Craig, W.M., Effects of preschool training on the development of reading and lipreading skills of deaf children. Amer. Ann. Deaf, 109, 280-296 (1964).

Craig, W.M. and Silver, N.H., Examination of selected employment problems of the deaf. Amer. Ann. Deaf, 111, 544-549 (1966).

Crammatte, A.B., The adult deaf in professions. Amer. Ann. Deaf, 107, 474-478 (1962).

Denmark, J.C., Some reasons for the mental health problems of deaf persons. Paper presented at the International Seminar on Vocational Research in Deafness, Hot Springs, Arkanaas (June, 1968).

DuToit, J.M., Measuring the IQ of deaf children. Amer. Ann. Deaf, 99, 237-251 (1954).

Friedman, M., The changing profile of the labor force. AFL-CIO, Amer. Federationist, 74, 7-14 (1967).

Frisina, D.R., A psychological study of the mentally retarded deaf child. Unpublished doctoral dissertation, Northwestern Univ. (1955).

Furfey, P.H., and Harte, T.J., *Interaction of Deaf and Hearing in Frederick County, Maryland.* Washington, D.C.: Catholic Univ. (1964).

Furth, H.G., *Thinking Without Language.* New York: The Free Press, (1966).

Glowatsky, E., The verbal element in the intelligence scores of congenitally deaf and hard-of-hearing children. *Amer. Ann. Deaf,* 98, 328-335 (1953).

Goetzinger, C.P., and Rousey, C.L., A study of Wechsler Performance Scale (Form II) and the Knox Cube Test with deaf adolescents. *Amer. Ann. Deaf,* 102, 388-398 (1957).

Graham, E.E., and Shapiro, Esther, Use of the performance scale of the WISC with the deaf child. *J. Consult. Psychol.,* 17, 396-398 (1953).

Hardy, Janet, Viral infections in pregnancy: A review. *Amer. J. Obst. Gynec.,* 93, 1052-1065 (1965).

Hardy, Janet, Monif, G.R.G., and Sever, J.L., Studies in congenital rubella, Baltimore, 1964-1965. II. Clinic and virologic. *Bull. Johns Hopkins Hosp.,* 118, 97-108 (1966).

Hiskey, M.S., *Nebr. Test of Learning Aptitude for Young Deaf Children.* Lincoln: Univ. Nebr. (1955).

Johnson, Elizabeth H., The Effect of academic level on scores from the Chgo. Non-Verbal Exam. for primary pupils, Amer. Ann. Deaf, 92, 227-233 (1947).

Kirk, S.A., and Perry, June, A comparative study of the Ontario and Nebr. Tests for the deaf. Amer. Ann. Deaf, 13, 315-322 (1948).

Kohl, H.R., Language and Education of the Deaf. New York: Center for Urban Education (1966).

Kronenberg, H.H., and Blake, G.D., Young deaf adults: An occupational survey. Washington, D.C.: Vocat. Rehab. Admin., Dept. Health, Education, and Welfare (1966).

Lane, Helen S., The use of standardized performance tests for preschool children with a language handicap. Proc. Internat. Cong. Educ. Deaf, 526-532 (1933).

Lane, Helen S., A performance test for deaf children of school age. Volta Rev., 36, 657-659 (1934).

Lane, Helen S., Measurement of the mental ability of the deaf child. Natl. Educ. Assn. Proc., 75, 442-443 (1937).

Lane, Helen S., Measurement of the mental and educational ability of the deaf child. J. Except. Child., 4, 169-173, 191, (1938).

Larr, A.L., and Cain, E.R., Measurement of native learning abilities in deaf children. Volta Rev., 61, 160-162 (1959).

Lavos, G., Interrelationship among three tests of nonlanguage intelligence administered to the deaf. Amer. Ann. Deaf. 99, 303-313 (1954).

Lenneberg, E.H., The biological foundations of language. Hosp. Prac., 2, 59-67 (1967).

Lowell, E.L., John Tracy Clinic Research Papers III, V, VI, VII. Los Angeles: John Tracy Clinic (1957-1958).

Lowell, E.L., Research on speechreading: Some relationships to language development and implications for the classroom teacher. Report of the Proceedings of the 39th. Meeting of the Convention of American Instructors of the Deaf, 68-73 (1959).

Lowell, E.L., Higher education for the deaf. In D. Cutler (Ed.) Workshop for Baptists on Deafness and Rehabilitation. Vocational Rehabilitation Administration. Dept. Health, Education, and Welfare, 28-36 (1965).

Lunde, A.S., and Bigman, S.G., Occupational Conditions Among the Deaf. Washington, D.C.: Gallaudet Press (1959).

Lyon, V.W., Personality tests with the deaf. Amer. Ann. Deaf, 79, 1-4 (1934).

MacKane, K., A comparison of the intelligence of deaf and hearing children. New York: Bureau of Publ., Teachers Coll., Columbia Univ., (1933).

MacPherson, June, and Lane, Helen S., A comparison of deaf and hearing on the Hiskey test and in performance scales. Amer. Ann. Deaf, 77, 292-304 (1932).

Matzker, V.J., Schizophrenia and deafness. Z. Laryngol. Rhinol. Otol., 39, 12-16 (1960).

McClure, W.J., Current problems and trends in the education of the deaf. Deaf Amer., 18, 8-14 (1966).

Meadows, Kay, The effect of early manual communication and family climate. Doctoral dissertation. Univ. Calif., Berkeley (1967).

Meyer, M.F., The use of the Lectometer in the testing of the hearing and the deaf. Amer. Ann. Deaf, 77, 292-304 (1932).

Mindel, E.G., A child psychiatrist looks at deafness. Deaf Amer. 20, 15-19 (1968).

Mira, Mary P., The use of the Arthur Adaption of the Leiter Int. Performances Scale and Nebr. Test of Learning Aptitude with preschool deaf children. Amer. Ann. Deaf, 107, 224-228 (1962).

Montgomery, G.W., Relationship of oral skills to manual communication in profoundly deaf students. Amer. Ann. Deaf, 111, 557-565 (1966).

Moores, D.F., Projected trends in language development for the deaf. Deaf American, 20, 5-7 (1967).

Morkovin, B.V., Language in the general development of the preschool deaf child: A review of research in the Soviet Union, Asha, 11, 195-199 (1968).

Myklebust, H.R., Clinical psychology and children with impaired hearing. Volta Rev., 50, 55-60, 90 (1948).

Oswald, R., The man in the gray collar. AFL-CIO American Federationist, 74, 24-30 (1967).

Pearlman, H.B., Sensory neural deafness. Arch. Otolaryngol, 1963, 77, 226-239.

Peterson, E.G., Testing deaf children with Kohs Block Design. Amer. Ann. Deaf, 81, 242-245 (1936).

Peterson, E.G., and Williams, J.M., Intelligence of deaf children as measured by drawings. Amer. Ann. Deaf, 75, 273-290 (1930).

Phillips, W.D., Influence of preschool training on achievement in language arts, arithmetic concepts, and socialization of young deaf children. Unpublished doctoral dissertation, Columbia Teachers Coll. (1963).

Pintner, R., and Lev, J., A study of the intelligence of the hard-of-hearing school child. J. genet. Psychol., 55, 31-48 (1939).

Quigley, S.P., and Frisina, D., Institutionalization and Psychoeducational Development of Deaf Children. Counc. Except. Child. Res. Monogr., Series A, No. 3 (1961).

Rainer, J.D., Altshuler, K.Z., Kallmann, F.J., and Deming, W.E. (Eds.), Family and Mental Health Problems in a Deaf Population. New York: N.Y. State Psychiat. Inst. (1963).

Rose, D.E., Audiological Assessment. New York: Prentice Hall (in press).

Rosenstein, J., and Lerman, A., Vocational Status and Adjustment of Deaf Women. New York: Lexington School for the Deaf (1963).

Ross, Grace, Testing intelligence and maturity of deaf children. Except. Child., 20, 23-24, 42 (1953).

Schein, J.D., and Bushnaq, S., Higher education for the deaf in the United States - a retrospective investigation. Amer. Ann. Deaf, 107, 416-420 (1962).

Scyster, Margaret, Summary of four years' experiment with preschool children at the Ill. School for the Deaf. Amer. Ann. Deaf, 81, 212-230 (1936).

Sessions, J.A., Automation and the deaf. Paper presented to the Leadership Training Program in Deafness, San Fernando Valley State Coll. (June 8, 1966).

Sharoff, R.L., Enforced restriction of communication, its implications for the emotional and intellectual development of the deaf child. Amer. J. Psychiat., 116, 443-446 (1959).

Shirley, Mary, and Goodenough, Florence, Intelligence of deaf children in Minnesota. Amer. Ann. Deaf, 77, 238-247 (1932).

Springer, N.N., A comparative study of the intelligence of a group of deaf and hard-of-hearing children. Amer. Ann. Deaf, 83, 138-152. (1938).

Stevenson, E.A., A Study of the Educational Achievement of Deaf Children of Deaf Parents. Berkeley: Calif. School for the Deaf (1964).

Stuckless, E.R., and Birch, J.W., The influence of early manual communication on the linguistic development of deaf children. Amer. Ann. Deaf, 111, 452-462 (1966).

Vernon, M., Measurement of the intelligence and personality of the deaf by drawings. Unpublished master's thesis. Fla State Univ. (1957).

Vernon, M., The brain injured (neurologically impaired) deaf child: A discussion of the significance of the problem, its symptoms and causes in deaf children. Amer. Ann. Deaf, 106, 239-250 (1961).

Vernon, M., What is the future for the deaf in the world of work? Silent Worker, 14, 7-12 (1962).

Vernon, M., Meningitis and deafness: The problem, its physical, audiological, psychological, and educational manifestation in deaf children. Laryngoscope, 10, 1856-1874 (1967a).

Vernon, M., Prematurity and deafness: The magnitude and nature of the problem among deaf children. Except. Child., 38, 289-298 (1967b).

Vernon, M., Psychological, educational, and physical characteristics associated with post-rubella deaf children. Volta Rev., 69, 176-185 (1967c).

Vernon, M., Rh factor and deafness: The problem, its psychological, physical, and educational manifestations. Except. Child. 34, 5-12 (1967d).

Vernon, M., The relationship of language to the thinking process. Arch. Gen. Psychiat., 16, 325-333 (1967e).

Vernon, M., Tuberculous meningitis and deafness. J. Speech hearing Dis., 32, 177-181 (1967f).

Vernon, M., Current etiological factors in deafness. Amer. Ann. Deaf, 113, 1-12 (1968a).

Vernon, M., Fifty years of research on the intelligence of the deaf and hard of hearing: A survey of the literature and discussion of implications. J. Rehab. Deaf, 1, 1-11 (1968b).

Vernon, M., Multiply handicapped deaf children: Medical, educational, and psychological considerations. Counc. Except. Child. Res. Monogr. (1969a, in press).

Vernon, M., Usher's syndrome - deafness and progressive blindness: Clinical cases, prevention, theory, and literature survey. J. Chron, Dis., (1969b, in press).

Williams, B.R., Introduction to a symposium on "Use of Manual Communication." Paper presented at the National Convention of the American Speech and Hearing Association, Chicago (October 31, 1965).

Williams, B.R., Resource needs of the deaf and ways to resolve them. Amer. Ann. Deaf, 103, 293-299 (1958).

Wrightstone, J.W., Aronow, M.S., and Moskowitz, S., Developing reading test norms for the deaf child. Amer. Ann. Deaf, 108, 311-316 (1962).

Zeckel, A., and Kalb, J.J., A comparative test of groups of children born deaf and of good hearing by means of the Porteous Maze Test. Amer. Ann. Deaf, 84, 114-123 (1939).

CHAPTER V

THE GIFTED CHILD

by:

Leslie D. Karagianis

Gifted children have been neglected by too many schools for too long a period of time. Many educators have been trying for years to educate the public and others in the educational field of the necessity of providing appropriate educational experiences for the gifted child. All educators give lip service to the idea that it is a right of each student to be educated to his fullest potential. Yet, when educational planning takes place or educational budgets set, little attention is paid to this important resource.

There was a flurry of interest centered on the gifted in the 1950's when the U.S.S.R. launched their first Sputnik. Many politicians in the United States demanded an answer as to why the U.S., a country they considered to be superior to the U.S.S.R. in the scientific field, appeared to be behind in initial space technology. To correct this imbalance between the two countries, additional money was made available for research, facilities, programs, etc. for the gifted. Some of this enthusiasm and interest overflowed into Canada.

Since the late 1960's and early 1970's, the general public in Canada has been less enthusiastic about the enormous sums of money spent on education by governments. The public now seems to want more money to go to other areas such as health and welfare;and governments, ever mindful of the public's will, have increased spending in these areas to the detriment of education. When cuts are made to the education dollar, the so called frill areas are the first to go. Many programs for the gifted have fallen to the austerity axe. Since some provinces have done very little for the gifted anyway, there is not so much a cutting of programs as a lack of new programs being developed. It now appears that in the short run, the best we can hope for is for all teachers to be aware of gifted children and to make some provisions for them in the individual classrooms. This is not the ideal solution, but it may be realistic for the next few years.

In March of 1972, the United States Commissioner of Education submitted a report to the U.S. Congress entitled Education of the Gifted and Talented. In the document, an advisory panel defined gifted and talented children in the following manner:

> Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and for services beyond those normally provided by the regular school program in order to realize their contribution to self and society.
>
> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas singly or in combination:
>
> 1. general intellectual ability
> 2. specific academic aptitude
> 3. creative or productive thinking
> 4. leadership ability
> 5. visual and performing arts
> 6. psychomotor ability
>
> It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3-5 percent of the school population.
>
> Evidence of gifted and talented abilities may be determined by a multiplicity of ways. These procedures should include objective measures and professional evaluation measures which

are essential components of identification.

Professionally qualified persons include such individuals as teachers, administrators, school psychologists, counselors, curriculum specialists, artists, musicians, and others with special training who are also qualified to appraise pupils' special competencies.

The panel suggested that a differentiated education program should have three characteristics:

1. A differentiated curriculum which denotes higher cognitive concepts and processes.
2. Instructional strategies which accommodate the learning styles of the gifted and talented and curriculum content.
3. Special grouping arrangements which include a variety of administrative procedures appropriate to particular children, i.e., special classes, honor classes, seminars, resource rooms and the like.

The readings in this particular area will act as a supplement to the material presented in the other text and in the lectures.. The articles are by noted Canadian and U.S. educators who have spent a great deal of time working with gifted children.

The articles selected for the book are only a sampling of the general topics in the area of the gifted. Edna Harrison's article outlines some of the characteristics of gifted children and the counselor's role in identifying these children. Torrance advocates a widening of the idea of giftedness to include such areas as outlined in the two previous paragraphs. Hunter suggests ideas that will help to improve creativity in the classroom. Plowman has indicated some appropriate programs that may be included.

THE COUNSELOR'S ROLE IN THE EARLY IDENTIFICATION OF GIFTED CHILDREN

by:

Edna L. Harrison

The initiation of any program in the elementary school starts with the principal. "He is the key figure," says Barr (1). "He is the person in the best position to view and interpret the over-all philosophy of the school, to see the guidance needs, and to instigate the machinery for getting guidance into operation." The first thing for the counselor to do, then, is to enlist the principal as a working member of the team.

Next to members of the family, the classroom teacher spends more time with the child than anyone else. Although he is limited by training, time, and experience in the types of problems he can handle, the biggest share of the guidance program in the school must of necessity be carried on by the teacher. So it is of the upmost importance that the teacher be in thorough accord with the identification program.

Parents, too, may figure in the matter of identification, although they are not necessarily the best judges as to whether their children have unusual ability or talents. Giftedness is not easy to recognize even by people best trained to do so.

CHARACTERISTICS OF THE GIFTED CHILD

What are we looking for when we go into the kindergarten in search of the gifted child?

In looking for an answer, we turn first to the kindergarten educationists to get a clearer picture of the average child and what might well be expected of him. Huey, in "Children from Two to Six." and Wills, "Readiness: Recognized or Developed," (4) raise standards he must meet. Beside those standards, Ruth Strang, in "The Nature of Giftedness" (7), aligns the characteristics of the gifted child. He is versatile, creative, original, curious, self-critical, and a logical thinker.

The counselor will enlist the help of the team to make up, as a beginning, a check list for the kindergarten such as the following:

1. The child has a great curiosity for everything in his way.
2. He is likely to be a non-conformist, an original thinker.
3. He is versatile, can do what other children do and more.
4. He is likely to use a more extensive vocabulary and express himself better.
5. He is capable of judging his own performance to a greater extent than most children.
6. He may be physically superior.
7. He is alert and eager, unless overly suppressed at home.
8. He is likely to show greater social sensitivity than average.

The list when completed, will be used by either teacher or counselor, or both, as one of a series of helps in identification.

TESTING FOR GIFTEDNESS

Too often, the Stanford-Binet is the sole instrument used for testing for giftedness. The counselor will need to reinforce his findings on the Binet, however, with observations, with mental ability tests such as the California Mental Maturity

Test, with performance tests such as the Arthur Point Scale, and perhaps the Columbia Performance Scale. Super rules out the Science Research Associates' PMA tests because they have not been validated: they have not "provided needed refinement, but downward abridgement with crude popularization" (6).

It may be that the counselor will need to use something more subjective, a test that will yield qualitative rather than quantitative results. MacLatchey (5) offers such a plan. She has compiled a series of questions which has to do with general information a kindergarten child might be expected to know. Among the topics are time concepts, liquid measure, avoirdupois weight, linear measure, the speedometer, money, and thermal measure. Her list was used with 108 kindergarten children and the results as reported by Spayde (10) were compiled quantitatively. They gave, however, some indication of what a child of higher intelligence might be expected to know and could be used on an individual basis as another type of observational data. Perhaps, in time, its continued use could be matched with other measures of similar nature and a clearer picture of the nature of the small child's giftedness be drawn.

It may be that some children, suspected of giftedness but unable to perform because of an emotional disability or slight brain injury will need to be referred by the counselor to an outside agency for testing or for treatment, or both.

THE CASE STUDY AND CONFERENCE

At the very beginning, the counselor should set up a folder for each child containing the outline for a complete study, including the child's life history from birth, parental observations, and observations of any school personnel who come in contact with him. Case conferences can be held as needed or when most advisable.

The counselor would begin with the cases that seem most obvious and add to the list as the year progresses, giving priority in so far as possible to the child's work in the kindergarten during the first semester. Work in the first grade should follow as soon as possible. Since "the traditional intelligence tests are not independent of the effects of cultural environment on the student" (8) it is well to give special consideration to children from low socio-economic backgrounds so that every child will have equal advantage in the search for individual differences. The case study should be so thorough that none will be neglected.

Barr (1) gives one of the best descriptions of how to prepare and conduct case studies and conferences complete with forms, work sheets, and check lists for examples from which to derive one's own. It will be the counselor's responsibility to call a conference and to act as chairman of the team. The nurse and other teachers will sometimes be temporary members of the team and the permanent membership of the team will change from time to time as work begins in a new situation. Sometimes a parent will come into the conference.

THE FOLLOW-UP

What will be done about it? What will the team do when one or more children of high ability are found?

In the case study the child's mental health as well as his physical health will have been determined. But immediately after identification must come an adequate program and the best means of motivation for highest achievement. If there is no special class for the child, grouping within the regular classroom will need to follow indentification. Grouping without ill effects can be done only in a classroom of kindergarteners where the teacher is thoroughly cognizant of the implications involved in the highest conception of democracy, that, as Schiefele (9) has said, "There is nothing so unequal as the equal treatment of unequals." Passow (3) has gone one step further and suggested that, because of needed attention, the gifted child within the regular classroom may himself be handicapped.

Most authors, Cutts (2) for instance, recommend either acceleration or reorganization of the primary grades into what is known as the "ungraded primary group." I believe it may be possible to reorganize the kindergarten to take care of the situation, particularly when the child is emotionally and socially immature, but it will be necessary that the following be carefully implemented:

1. To place such children with a teacher who is willing to make her daily program flexible and study the child thoroughly.
2. To arrange the room in such a way that there will be a "quiet room" or corner set off from the rest where a child can go to be alone sometimes or with a small group with whom he can work on his own level and be given materials and motivation that will challenge his highest efforts.

In order to plan for such a program, it would be necessary to consult the best kindergarten authorities such as those found in Leavitt (4) and to develop an entirely new idea in Kindergartens, well substantiated by the better practices already established. It will take creative teachers to do this. The counselor should be responsible for much research and all the help he is capable of giving, within his bounds, to the teacher.

The question of acceleration must be thoroughly studied especially in the light of Passow's lists of advantages and disadvantages (7).

SEEKING THE BRILLIANT HANDICAPPED CHILD

It has been shown (Strauss [11]) that many hyperactive children who have a history of slight brain damage, but through lack of proper and adequate training are unable to perform normally, may be helped to redirect their sensory-perceptive and sensory-motor responses into new channels, thereby making fuller use of their high potential ability. Emotionally handicapped children may be affected beyond the helpful reach of the counselor and may need to be referred to an outside agency. It is the counselor's job to determine, after thorough study of the child and consultation with the teacher and parent, whether such referral is advisable.

PARENT COUNSELING

It will be the responsibility of the counselor to see that the parent is fully informed of the program for his child, to explain the child to his parents, and to suggest helpful routines and plans for background enrichment.

It is well known that parents often have many fears in connection with their association with the teacher. The establishment of good home-school relationships is basic. There is still a barrier between parents and teachers that must be broken down if home and school are to function together (1). It is the counselor's job to foster better relationships.

CONCLUSION

The areas indicated are probably the salient ones of concern to the school counselor. Elementary school counseling is a relatively new field, relatively new because the literature is only just beginning to scratch the surface in research on the actual work the counselor does and on that which should be required of him.

This we do know: the leaders of tomorrow are in the schools of today. It is going to take the combined knowledge and work of school and community personnel to discover the potential of each child who is to be educated in the nation's schools and to see that each has his fair opportunity to develop that potential to the utmost for the highest good that he is able to offer, both to himself and to his world.

REFERENCES

1. Barr, John A. *The Elementary Teacher and Guidance*. New York Henry Holt, 1958.
2. Cutts, Norma E., & Moseley, Nicholas. *Teaching the Bright and Gifted*. Englewood Cliffs, N. J.: Prentice-Hall, 1957.
3. French, Joseph L. *Educating the Gifted: A Book of Readings* New York: Henry Holt, 1959.
4. Leavitt, Jerome E. *Nursery-Kindergarten Education*. New York: McGraw-Hill, 1958.
5. MacLatchey, Josephine. A test of pre-school children's familiarity with measurement. *Educ. res. Bull.*, N'50.
6. National Education Association. *Administration: Procedures and School Practices for the Academically Talented Student in the Secondary School*. Washington, D. C. NEA, 1960.

7. National Society for the Study of Education. Education For The Gifted. 57th Yearbook, Part II. Chicago: University of Chicago Press, 1958.

8. Passow, A. H., Goldberg, M., Tannenbaum, A. J., & French, W. Planning For Talented Youth. New York: Bureau of Publications, Teachers College, Columbia University, 1955.

9. Schiefele, Marian. The Gifted Child in the Regular Classroom. New York: Bureau of Publications, Teachers College, Columbia University. 1953.

10. Spayde, Paul E. Kindergarten children's familiarity with measurement. Educ. res. Bull., D'53

11. Strauss, Alfred A., & Lehtinen, Laura E. Psychopathology and Education of the Brain-Injured Child. New York: Grune and Stratton, 1958.

BROADENING CONCEPTS OF GIFTEDNESS IN THE 70'S[1]

by:
E. Paul Torrance
Department of Educational Psychology,
University of Georgia

In this country there is widespread belief that every human being has a right to optimum development of his potentialities and that every person possesses a unique set of potentialities, interests, goals, percepts, liabilities, and assets. Yet we have never been able to work up very much support for educational provisions that will give our most gifted children and youths this chance. As we enter the 70's, it is time that we ask some searching questions about the reasons for this state of affairs and develop more valid concepts of giftedness that this country can accept.

MULTI-TALENT CONCEPTS OF GIFTEDNESS

To replace concepts of a single type of giftedness, a variety of proposals have emerged. One of the earliest of these came from England. The Education Act of 1944 in England implemented the idea that there are three kinds of intellectual giftedness: a literary or abstract type to be educated at grammar schools, a mechanical or technical type to be educated in technical schools, and a concrete or practical type to be educated at modern schools. Writing in 1958, Sir Cyril Burt, the eminent English educational psychologist, reported that this scheme had not worked out as well as had been hoped.

---

[1] Prepared for Northeast Regional Conference for the Gifted and Creative, November 5, 1970, New Haven, Connecticut.

In the United States, most of the broadened concepts of giftedness offered in the 60's were inspired by Guilford's (1967) Structure of Intellect Model. In this Model, Guilford has offered what amounts virtually to a periodic table at different kinds of intellectual functioning. The Model is complex and incomplete but it has inspired a number of important innovations in the education of gifted children.

Guilford's Structure of Intellect Model remained almost totally neglected until Getzels and Jackson (1962) showed that highly divergent or creative adolescents achieved as well as their highly intelligent peers, in spite of the fact that the two groups studied differed by 23 I.Q. points. In eight partial replications of the Getzels and Jackson study, I (Torrance, 1962) found that if one identified as gifted the upper 20 percent of a given population on an intelligence test alone, he would miss 70 percent of those who would be identified in the upper 20 percent as gifted by a test of creative thinking. Not all of my replications yielded the same results concerning school achievement as did the Getzels-Jackson study. They indicated clearly, however, that there were some terribly important differences between children identified as highly intelligent and those identified as highly creative.

Still almost unnoticed is that part of the Getzels-Jackson study (1962) dealing with two kinds of psychosocial excellence-that is, high school adjustment and high moral courage. It was found that just as the highly intelligent student is not always highly creative, the highly adjusted student is not always high in moral courage. Further, it was found that although students high in moral courage achieved at a higher level than highly adjusted students, the teachers perceived the highly adjusted students as the leaders - as the really worthwhile members of the student body - rather than those high in moral courage. Educators were not ready to accept high moral courage as a desirable kind of giftedness.

By the mid-60's a number of multiple talent models of giftedness were being offered. One of the more powerful of these is the one suggested by Calvin W. Taylor. Taylor's (1968) groupings of talent are based on world-of-work needs and specify at present academic talent and five other important types: Creative (and productive) talent, evaluative or decision-making talent, planning talent, forecasting talent, and communication talent. Taylor argues that if we consider only the upper ten percent on each talent group as gifted, the percentage of gifted will increase from ten percent for one talent area to thirty percent across the six talent areas. He argues further that if we limit ourselves to cultivating one of these talent groups, only 50 percent of our students will have a chance to be average (the median) in classes. If all six talent groups are considered, about 90 percent will be above average in at least one group and almost all others will be nearly average in at least one of them.

Taylor believes that we now know enough about measuring and fostering multiple talents to find ways of cultivating most of them in school rather than letting them lie largely dormant. He also believes that in classrooms where multiple talents are cultivated all students will learn more. In other words, by having more pathways through their complex nervous system, students can use several different abilities at one time or another to process information during the school week. He believes this will happen if teachers sharpen their abilities to cultivate these talents and deliberately work across a greater number of these talents with which schools now concern themselves.

HIDDEN GIFTEDNESS OF DISADVANTAGED

During the 60's there was some budding interest in finding "hidden" giftedness, especially among children born and reared in poverty and deprivation. Most of the projects designed to either discover or develop the "hidden" talents of disadvantaged children and youth have been effectively "put down" as quickly as possible. Even those short-lived, always-gasping-for-life projects have taught us much. Furthermore, there have been a few of these such as George Witt's in New Haven that have survived in spite of lack of support from established sources.

Frank Reissman (1962) was one of the first to call attention in any very powerful way to the positive talents of culturally disadvantaged children. He recognized the need for building upon these positives which he identified as follows:

1. Slow learning gifted children - children who appear "slow" because they are careful, cautious, one-tracked in their way of learning, or physical learners.

2. Hidden verbal ability - very verbal out of school, articulate with peers, and articulate in role playing.

3. Positive attitude toward education, though unfavorable attitude toward school.

4. Enjoyment of and skill in games, physical activities, music, expressive activities.

5. Cooperativeness and mutal aid.

6. Avoidance of strain accompanying competitiveness and individualism.
7. Children's enjoyment of each other's company.
8. Informality and humor.

Building upon Reissman's work and on the basis of four years of exploratory work with disadvantaged children, primarily blacks, I have suggested a set of creative positives which I have found to exist to a high degree among disadvantaged children and upon which I believe we can build successful educational programs and ultimately optimal use of potentialities. These creative positives are as follows:

1. Ability to express feelings.
2. Ability to improvise with commonplace materials.
3. Articulate in role playing, creative activities
4. Enjoyment and ability in art, drawing, painting, etc.
5. Enjoyment and ability in creative dramatics, dance, etc.
6. Enjoyment and ability in music
7. Expressiveness in speech
8. Fluency and flexibility in non-verbal media
9. Enjoyment and skills in group learning, problem solving.
10. Responsiveness to the concrete
11. Responsiveness to the kinesthetic

4

12. Expressiveness of gestures, "body language," etc.

13. Humor

14. Richness of imagery in informal language, brainstorming

15. Originality of ideas in problem solving, brainstorming

16. Problem-centeredness

17. Emotional responsiveness

18. Quickness of warm-up

I have argued that if one is searching for gifted individuals among disadvantaged populations, he is likely to have better success if he seeks them in the areas identified here than in traditional ways. I have also contended that we should give more serious consideration to careers in the creative arts and sciences for disadvantaged youth than we have in the past. When asked about their aspirations, almost no disadvantaged children express choices in the creative fields (Torrance, 1967). Yet a large share of the disadvantaged persons who have attained outstanding success have done so in creative fields, especially in those where talent has no boundaries and economic advantage has not been a barrier to admission. More important than these considerations, however, is the possibility of building educational and talent development programs on these positives. Special educational programs for disadvantaged children and youth have been compensatory in nature and have emphasized the virtues of uniformity. My proposal is that we recognize and acknowledge as positive these qualities and teach disadvantaged children to use them positively and to build upon them.

PRESSURES FOR UNIFORMITY IN PROGRAMS FOR GIFTED

Earlier, I mentioned the fact that in the main we have relied upon acceleration, enrichment, and special classes as the vehicles by which we have sought to provide more adequate education for gifted children. None of these provisions has ever been very popular with educators or with the public. Major criticisms have been that these special provisions are elitist, undemocratic, and cause children to have inflated self-concepts. A more justified complaint might have been that these programs for gifted children have over emphasized uniformity and standardization. When children have been accelerated it has been to keep them from being too outstanding in their group and to have them learn the standard things that older children are learning. When children have been placed in separate classes, they have almost always been given a uniform curriculum. There has still been one standard, one set of books, one curriculum, and one fiscal policy. In practice, enrichment has been much the same and teachers have not dared wander far from the prescribed curriculum or let the curriculum be different for one child.

RESPECT FOR INDIVIDUALITY

The first requirement is that this new concept of giftedness respect each child's individuality and aid him in achieving a healthy, strong sense of identity (Torrance, 1970). Rather than honoring the cultural assumption that "the good child is a modest child," it must stress the fact that recognition and acceptance of positive characteristics is necessary for self-realization. It must reject the assumption that "man is innately evil" and instead accept the fact that man is born neither good nor evil but with innate potential for determining in large part his "human" development. It must reject the assumption that giving attention to deficiencies motivates proper behavior and instead accept the more realistic belief that giving attention to successful behavior motivates attainment of potentialities.

It must reject the assumption that suffering produces character and instead teach children to cope constructively with predictable stresses. It must reject the assumption that independence is the highest virtue and instead recognize that interdependence is the road to cultural competence and interpersonal satisfaction.

It must reject the belief that the only way a person can succeed is to best others and instead recognize that each person is unique and has particular strengths that must be valued. It must reject the idea that there is a superior race, a superior sex, or a superior set of cultural characteristics and instead accept the fact that our strength is in our diversity. It must reject the assumption that the expression of feelings demonstrates weakness and instead accept the fact that the expression of feelings is essential to mental health and to the realization of human potential.

INDIVIDUALITY IN THE EARLY YEARS

This new approach to the education of gifted children must give full recognition to the fact that individuality is established largely in the early years of a child's life and that these early years are critically important in the emergence of a healthy, strong identity and the new realization of potentialities. In this new approach, we would start teaching children almost from birth about their own individuality. Almost from birth, children's senses of taste and smell, their reactions to colors and forms, their styles of doing things, their likes and dislikes of sounds, etc. will be sufficiently diverse from those of other children to be striking and revealing. I would agree with Roger J. Williams (1953, p. 73) who maintains that the idea of non-uniformity, if clearly demonstrated to children at an early age, would become an easily accepted commonplace. As the child grows older, he would continue to learn more and more about himself and about the society into which he has to fit (or misfit, if need be). However, as Williams argues, it is likely that a child's chances of being a misfit would be decreased if he knows about himself and about society. The gifted and creative child will be inclined to accept his unusualness and will not be psychologically disturbed by it.

Certainly in the primary grades, children would be taught about their individuality. There are certainly pitfalls, and ways and means of avoiding these must be worked out. However, I can see no reason why even small children would not profit from learning about their differences in tastes (colors, designs, music, flowers, food), in motor skills, and in hearing and visual characteristics. I would even teach them about the differences in their intellectual skills. If schools could do this successfully, we would no longer find so many gifted older adults whose potentialities have been wasted because they always thought that they were "below average" or "only average."

When I think about what happens to gifted young people today, it is easy to understand why we have so many cases of wasted potentialities. For example, a college freshman wrote me just a few days ago about a whole series of things that teachers, counselors, and school administrators have done to "put him down" and to pressure him in the direction of uniformity. For example, the counselor who gave him the individually-administered Wechsler Adult Intelligence Scale deliberately showed him another person's test record (pretending it was his) to make him "feel more normal or average." In dealing with this highly intelligent and highly creative young adult, not even a professionally trained counselor was able to acknowledge this college freshman's identity. Such behavior would not occur in this new approach to the education of the gifted.

OPEN-ENDED PROGRAMS AND METHODS

To accomodate such an expanded concept of giftedness and creativity as I have described, educational programs and methods must be open-ended. Perhaps the biggest reason why most present programs for the gifted are unsatisfactory is that they have not been open-ended enough really to give gifted children a chance to develop their potentialities. Only open-ended programs and methods can be truly responsive to the abilities, choices, and interests of gifted children. If we know anything for sure about gifted children it is that they are different. They learn different things in different ways, not just quicker. Some think better in numbers than in words, and they perceive and understand mathematical relationships more easily than verbal relationships. Still others are unusally skilled in manipulating spatial relationships and objects but are quite incompetent in literature. The ways in which gifted children differ in the ways they learn are almost infinite since each person is unique.

Open-ended programs and methods of instruction have generally been regarded as dangerous. Such programs and methods of instruction cannot be pre-inspected and certified for safety (or sterility). One never knows where the open ends will lead and this is frightening to the incompetent, the insecure, the unimaginative, and the non-creative. Open-ended kinds of education requires a high degree of creativity of the teacher or whoever else is responsible for managing the learning-teaching situation. It is extremely interesting to note that the new approaches to individualized instruction are relying upon educational technology. With the various kinds of programmed and computerized instruction that are coming into vogue under the label of individualized instruction, the curriculum specialist and teacher feel that they are in control and are safe. One wonders, however, if this approach genuinely respects the individuality of the child or if it simply guarantees a higher degree of uniformity than ever before. The gifted child, strapped into a piece of educational hardware, may have fewer escapes from coercion than in the most rigid and authoritarian classroom.

For effective learning - or effective behavior of any kind - there must be some structure, some guides to behavior. One must never lose sight of the self-acting nature of the human mind. This is an especially powerful force in the education of creatively gifted children and young people. It is almost as if their creativity plugs them into infinity. No matter how much structure you give the highly creative child, he will want to know about things outside of this structure. He will produce ideas that go beyond the wildest predictions of the teacher or curriculum maker. This is a major reason why the creative child makes the insecure, authoritarian teacher so uncomfortable and is punished so severely by such teachers. It is also the reason the secure teacher who respects individuality finds such joy in teaching such children. Many of a child's guides to behavior come from the way the teacher responds to him and especially to his self-initiated attempts to learn. This requires of the teacher the most sensitive and alert kind of guidance possible.

Unfortunately, the whole idea of open-ended education is foreign to the understanding of many educational leaders. During the past ten years, I have tried to develop and test a variety of open-ended instructional materials and instructional methods (Torrance and Myers, 1970; Torrance 1970a). I continue to be surprised at the way these are perceived by some of my colleagues. Recently a colleague who styles himself as a "behavior modifier" remarked to me that he had examined many of the materials that I had developed and that there were in them strong elements of behavior management and behavior modification. What he was unable to see was that everywhere there were in them open ends which give children full opportunity to respond in terms of their experiences, abilities, interests, and motivations and which respect the individuality of each child. What one cannot satisfactorily build into instructional materials is the responsiveness of the teacher and other pupils to the infinity of responses evoked by the instructional materials. For this and other reasons we shall need more than ever to have well trained specialists to work as teachers, consultants, and administrators of programs for gifted and creative children.

ADMINISTRATIVE ARRANGEMENTS

This open-ended kind of education can take place within a variety of kinds of administrative structure. I would not quibble a great deal whether it involved separate classes, acceleration, or enrichment - or some combination of the three approaches. At the elementary level, some kind of nongraded arrangement might provide a very congenial administrative structure. It would have to be open-ended enough so that some of the instruction could be done in large groups, some in small groups, and some with single individuals. In many instances, the children would instruct one another. Much work would be done in dyads, working both inside the school building and outside of it.

In many instances, the instruction would be by persons in the community - perhaps not certified to teach but capable of teaching with authority something that even the best qualified teachers are unable to teach. Systematic and deliberate attempts would be made to place children identified as gifted or creative with a sponsor, a creative person in the community who would assume some responsibility for helping the child get a chance to cultivate his potentials. The philosophy to accompany this might be: "You don't get something for nothing but you'll have a chance to work for it."

IDENTIFICATION AND TESTING

Perhaps I should comment on the matter of identification and the use of tests in the identification of potentialities. In the past I have advocated the use of both intelligence and creativity tests, because I think they help make us aware of the potentialities that might otherwise go unnoticed. However, I am not certain that tests will even be needed under the expanded concept of giftedness and creativeness that I have tried to describe. If we start almost from birth teaching a child about his individuality and if the important adults in a child's life recognize and acknowledge his potentialities, there is little need for tests. I realize, of course, that standardized tests may provide a kind of feedback that will be useful in establishing a realistic identity. I also realize that we may never have adequate resources for providing gifted children with all of the opportunities and resources needed for developing their potentialities. For this reason, it might be necessary at times to use standardized tests.

As much as possible, however, I would like to see a shift from the present stimulus response approach in testing with its standardized tasks to a responsive environment approach in which intellectual and creative potentialities would be assessed in situations which the child initiates. There would be an ongoing process in which parents, teachers, and talent developers would continually be recognizing and acknowledging a child's potentialities. This process would begin very early in a child's life and continue at least through the years of formal schooling if not through career development. This is necessary because the broadened concept of giftedness and creativeness that I have been describing is something dynamic and changing, not something static and predetermined.

One of the features that has disturbed me about many recent and current programs for gifted children is that only well-adjusted, high achieving children have been included. Children exhibiting behavior problems, children who excel in one or two fields but are not well-rounded , children from disadvantaged backgrounds, and children who learn a great deal on their own but do not excel on those things that count on the grade books are usually excluded. Educators have argued that even though these children have high potentialities, the probability of their success is low and that they hold the rest of the class back. Such an attitude, of course, springs from a lockstep concept of uniformity and conformity in programs for the gifted. For several years, I have urged that we be concerned about identifying those potentialities which, if given a chance, will produce outstanding achievement. Giving gifted children in these categories a chance requires that their individuality be respected. It is when attempts are made to coerce them to learn and behave in ways contrary to their individuality that the trouble begins.

Williams (1953) contends that millions of potentially fine members of society become criminals who would become useful members of society if we recognized their individuality and were reasonably successful in finding suitable outlets for their creative energies. The broadened concept of giftedness that I have in mind would include all of the categories I have just mentioned.

ECOLOGICAL CHILD PSYCHOLOGY

Under this broadened concept of giftedness and creativity, it will be necessary to pay much more attention to the environmental features of both schools and communities. Fortunately, the advent of the 1970's witnesses a burgeoning interest in ecological child psychology. One of the two recommendations of Forum No. 2 (Emergence of Identity) of the 1970 White House Conference on Children will be for the establishment of child-oriented environmental commissions that might operate at national, state, and local levels.

These environmental commissions would develop and disseminate information about environmental conditions favorable to the emergence of strong, healthy identities among children. These commissions would advise, help plan, inspect, and approve construction and renovation of homes, apartments, public buildings, parks, day care centers (preferably child development centers), streets, and the like to meet children's needs. They would encourage studies of the influence of various kinds of behavior settings and environmental conditions on children. Local commissions might organize and operate a children's cultural committee to expand the life space of crowded city dwellers by enabling families in a variety of ways to use the parks, zoos, museums, libraries, and other facilities of the larger community. These local commissions might organize and supervise community centers that provide materials (clay, paper, string, rope, wire, wood, wheels, etc.) and personnel (artists, musicians, carpenters, mechanics, engineers, cooks, writers, etc.) to share their skills and abilities with children.

It may be some time, of course, before we gain wide acceptance of the importance of environmental considerations in homes, schools, and communities in the realization of human potential. In his recent book on ecological psychology, Barker (1968) pointed out that a common view among psychologists is that "the environment of behavior is relatively unstructured, passive, probabilistic area of objects and events upon which man behaves in accordance with the programming he carries about within himself" (p. 4) On the basis of his ecologically-oriented research, Barker proposes that the environment be viewed as consisting of "highly structured, improbable arrangements of objects and events that coerce behavior in accordance with their own dynamic patterning" (p. 4) Barker and his associates found that they can predict some aspects of children's behaviour more adequately from the behaviour characteristics of the setting (drugstores, playgrounds, classrooms, etc.) than from knowledge of the behaviour tendencies of the particular children.

It takes little imagination to begin thinking of environmental changes in schools, homes, and communities that would facilitate talent development and serve the needs of gifted and creative children. I suspect, however, that there are ways of improving these environments for gifted and creative children of which we cannot yet dream. Thus, we need immediately individuals and groups willing to explore the possibilities and researchers willing to undertake experimental studies of the role of environments as talent developers.

SUMMARY

To summarize, it might be said that the 1950's and 1960's witnessed profound changes in our concepts of intelligence and the functioning of the human mind. One of these changes was a broadened concept of giftedness to include creativeness and other types of ability. Thus far, however, neither professional educators nor the public has found these concepts satisfactory. In an effort to move in the direction of an even broader and a more satisfactory concept of giftedness, I have proposed that we go back and really place credence in our old belief that every human being has a right to optimum development of his potentialities and that every person posesses a unique set of potentialities, interests, goals, percepts, liabilities, and assets. In order to give our most gifted and creative children and youths a chance to develop their potentialities optimally, I have suggested that the following characteristics be incorporated into educational programs:

1. Respect for each child's individuality and aid in achieving a healthy, strong sense of identity.

2. Rejection of those cultural assumptions that are contrary to our new understandings of the nature of man and human development and acceptance of beliefs more in harmony with present knowledge.

3. Recognition of the importance of the early years of a child's life and teaching children almost from birth about their individuality.

4. A continuous process in which both the child and society recognizes, acknowledges, and accepts his potentialities.

5. Identification of potentialities not be limited to what can be learned from standardized tests but including performances initiated by the child in his own environment.

6. Programs and methods open-ended but with adequate structure for guides to behavior.

7. Well-trained educational specialists who will emphasize roles as talent recognizers, acknowledgers, and developers.

8. Attention to environmental features in homes, schools, and communities that support and facilitate talent development.

REFERENCES

Barker, R. G. Ecological Psychology. Standford, Calif.: Stanford University Press, 1968.

Burt, C. The Inheritance of Mental Ability. American Psychologist, 1958, 13, 1-15

Reissman, F. The Culturally Deprived Child. New York, Harper and Row, 1962.

Torrance, E. P. Guiding Creative Talent. Englewood Cliffs, N. J.: Prentice-Hall, 1962.

Torrance, E. P. Rewarding Creative Behavior. Englewood Cliffs, N. J.: Prentice-Hall, 1965.

Torrance, E. P. Understanding the Fourth Grade Slump in Creativity. (Mimeographe USOE Report)Athens, Ga.: Georgia Studies of Creative Behavior, University of Georgia, 1967.

Torrance, E. P. Encouraging Creativity in the Classroom. Dubuque, Iowa: Wm. C. Brown, 1970a.

Torrance, E. P. (ed.) Preliminary Report: Emergence of Identity. Report of Forum No. 2, White House Conference on Children, Washington, D. C., 1970b.

Torrance, E. P. and Myers, R. E. Creative Learning and Teaching. New York: Dodd, Mead and Company, 1970.

Williams, R. J. Free and Unequal. Austin, Tex.: University of Texas Press, 1953.

FOSTERING CREATIVE EXPRESSION

by:

Elizabeth Hunter

While there is some argument about whether or not creativity can be "taught" there seems to be no question that this aspect of human capability can be encouraged and nurtured. This article will not delve into the differences and similarities of meaning between the words "encourage" and "teach" but will suggest specific methods and ideas which teachers can use with children to foster creative written and oral expression. It is undoubtedly true that a rigid and stultifying classroom, where only the teacher's way of doing things is "right," will discourage creative expression on the part of children. In addition to providing an accepting classroom environment in which participation in planning is encouraged, alternatives are recognized, and children's ideas and feelings have worth; teachers need to give children quite specific help with speaking and writing ideas.

Some teachers attempt to create a mood for writing by playing music, reading poetry or displaying "lovely" paintings; and while this may encourage some children, others find themselves with the same dearth of ideas after the mood experience as before. Other commonly used means to further children's writing consist of giving such assignments as: write a story about what you did over the weekend, or simply, write a story. Since many children do not know how to make commonplace happenings interesting and are at a loss for story ideas, they do not find these instructions helpful. Directions such as: "Think of an appropriate title, start in a way which will capture the reader's interest, make sure the central portions are sequential and logical and finish up with an interesting paragraph," will also leave many children where they started - without ideas which they can get hold of and with little knowledge of how to proceed.

How, then, can teachers help children express themselves with originality and imagination? How can a teacher foster creative expression? Three categories need to be considered:

(1) Children need help with ideas for plot and content.

(2) Children need language help: increasing the effectiveness and range of words and learning new and interesting ways of sending messages.

(3) While utilizing the first two categories, children need help with process - methods of getting started, of gathering and examining ideas and words and exchanging them with others.

The last category will be discussed first.

PROCESS HELP

Many children have little idea of how to get started with stories or poems and not much past experience to draw upon, even though they may be in the intermediate grades. One useful way to help children begin is to do some whole-class writing: that is, the teacher takes over the mechanics of writing while the class talks out the ideas and plot. The teacher may participate as a group member and act as secretary as well. Rather than use the chalkboard, in this kind of exercise, the teacher may jot down ideas on a pad of paper as they come forth and later transfer the finished product to chart paper, the chalkboard, or rexographed sheets. In this stage, much can be talked and re-talked -plot ideas and language to be used - without making final decisions. No final product need be written out; it can be talked and left at that. After all, stories were handed down orally, for generations, both before the development of writing and before large numbers of people could read.

The teacher will want to be accepting of all ideas at this stage, neither criticizing nor praising, but utilizing such verbal behavior as, "That's one idea." "Would someone like to add to Jack's idea?" "All right." "You're suggesting then, that the old man should be a kind person." "That'a another thought." The use of praise or rejection discourages the variety and number of contributions, for children will try to outguess the teacher about what is good and, therefore, right. Negative criticism should probably be non-existent at this stage and even later in the year as criteria are developed. It is wiser to encourage progress through positive means: "Might you have asked a question at that stage?" "Is there any possible ending which might permit the boy to give up the puppy in another way?" "A bit of conversation might be useful at this point." To be avoided are negative comments: "Your language is not very colorful." "Your ending is poor."

The class may continue to work as a total group from time to time throughout the year, at the same time that they begin to work as individuals and in small groups. Working in small groups is fruitful for exchanging ideas. The group may compose stories or poems together or merely meet to talk and then separate to write individually. Again, there need not be writing at all: talk can be the means and the final product, especially where writing skills are far below verbal skills. In nursery school and kindergarten children, of course, cannot write, but throughout the grades the mechanics of writing may inhibit creative expression.

When teachers are somewhat hesitant about putting children into groups because they have not had this kind of classroom experience and do not know how to work in small group situations, it may be wise, after some initial whole-class experiences, for the teacher to work with one group of perhaps five to eight children, while the rest of the class observes. This might be done several times, with different pupils participating. Next, one group might work by itself while the rest of the class is involved in something else, then a second group can be added, and so on. When the total class is working in small groups, the teacher will want to be available for help, moving from group to group as the need arises. Groups may be made up of only two pupils, if this seems most feasible, and again, the partners may exchange ideas and then work on their own; they may work together in the actual writing, or they may just talk their ideas and not write at all.

PLOT AND CONTENT IDEAS

Children may have few resources for actually tapping their thoughts and need, at least in the beginning, "pump Primers." The sources for ideas are many. Thought-provoking pictures (as differentiated from "lovely" pictures) are valuable. Pictures which show people, particularly children, in varying moods and situations, pictures which provoke speculation - can be helpful in stimulating pupils' writing and speaking. Teachers may want to collect folders of such story idea pictures.

Many specific assignments may be used as starters. The following list is indicative of the variety of plot suggestions and "pump primers":

Tell or read a story to the class and stop at a logical point, letting the children supply a variety of endings. Then examine the author's ending.

Read or tell a story in its entirety and then invent other possible endings.

Make up sad and happy endings for the same story.

Extend the adventures of the characters in a story which the children know.

Write a novel, or serial, using the same key characters, perhaps persons known to the class.

Tell the beginning and end of a story and let the children speculate on a variety of middles. Then examine the central portion of the original story.

Make up stories from the viewpoint of another character in the story; for example, from the point of view of the wolf in Red Riding Hood, the stepsisters in Cinderella, the giant in Jack and the Beanstalk, the rat in Charlotte's Web. The task ordinarily would be to make these characters more sympathetic without changing the essential storyline.

Speculate about some "ifs": "What would it be like if I were an only child?" or, "....if I had ten brothers and sisters?" "What if our teachers could only say 'yes'?" "What if there were no schools?" "If I could be any animal I chose, what would I want to be?"

Make up myths: why Santa wears a red suit; why the witch flies on a broomstick; why we cry when we're sad instead of laughing.

Provide beginning sentences or portions of beginning sentences: "Suddenly I knew the reason why no one would look at me." "Stop, Stop," I yelled." "The little boy cried so hard he thought he would never stop." "Everything looked marvelous, but then I realized that something was dreadfully wrong." "Jane's mother would never let her....." "When the colt tried to run away he....." "I was really mad because......" "My perfect friend would be someone who......"

Providing ending sentences: "And that's why the two girls never spoke to each other again." "Well, after that I never loaned my bicycle to anyone again." "And so the catastrophe had a happy ending after all - I think! "

Make up stories incorporating certain words: a teacher, a bug and a motorcycle; a bear, a bowl of fruit and a book; a spaceman, a candy bar and an overcoat.

Put objects into paper bags and ask the children to invent stories about them. The bag might include: a pencil, a nail and a glove; a piece of paper, a picture and a pair of eyeglasses.

Pretend that inanimate objects can speak and make up stories utilizing their conservation: "What does my math book say about me after I've gone home?" "What does our chalkboard think about us?" "What does my bed say about me after I get up in the morning?"

Children can begin to work on their own ideas and suggest ideas to others, more or less gradually depending upon individuals and classroom make-up. The teacher will want to be ready to provide plot and content help when necessary throughout the year.

Plot and content idea should probably be worked on first, with much empahsis on the outpouring and exchange of ideas. The language to be used can be worked out after the content ideas are somewhat arranged. While some children and some classes need more process help than others, all children need varying degrees of continuing assistance in gathering, examining and exchanging ideas.

LANGUAGE HELP

Once children are helped with ideas or are able to draw upon their own store of experiences, they often become quite skillful in the area of plot and content sequence. However, they usually require help with language, to add interest to their work and make ideas more vivid and expressive. Children often do not realize that one reason why certain stories and poems are more interesting than others is because the author has used words well. Children tend to utilize the same rather limited store of words over and over, despite the fact that they own a more varied language supply. Creative expression assignments help increase word supplies.

Children will not necessarily know (to indicate one area of possible language help) that conversation can add interest to stories. Rather than use the actual spoken words of characters, they will tend to relate incidents without employing conversation. ("He told his mother he didn't want to go," rather than "Ma,' he said, 'I won't go to school, and I won't, I won't, I won't!") When using conversation they often rely heavily upon the verb said, usually placing it at the beginning of sentences. They can be helped to see that varying the position of the speaker's identification and the verbs used will increase the story's interest. ("Why won't you do it?" she asked. "because, if I do, then I'll miss the picnic,' he replied," rather than, She said, 'Why won't you do it?' and he said, 'Because if I do, then I'll miss the picnic.'") Teachers can point up the many variations for said, asked and replied by helping children toward" "'Well,' he smiled." "'No, she frowned." "'Oh! he yelled" "'Why?' she whined." Using children's literature from time to time to point out what "real" authors do will be helpful here.

The search for different words and other ways of saying things can be an interesting task for children. "What other words can we use for sad, happy, fast, silly?" The introduction of metaphor and simile, without necessarily using those terms, may enter at this point. "How can we say this so that the reader or listener will see, as closely as possible, what we see in our own heads? What is it like - 'what can it be compared to?" For synonyms, a thesaurus is invaluable. At Halloween time, for instance, one might list other words for witch, balck and flew and then see what the thesaurus has to offer.

Another helpful language activity is one which takes simple, rather barren, sentences and fleshes them out so that they become more vivid. "The noise frightened the boy, and he ran down the stairs," can become, "Bang! The quaking boy flew down the staircase like a Titan rocket." A corollary of this is to examine interesting sentences from trade books and, while retaining the message, make them dull and ordinary.

This is not to say that short, concise sentences cannot be as appropriate as long, involved sentences. Sometimes youngsters begin to think that using large numbers of descriptive words automatically creates good sentences. "Johnnie was a poor, bedraggled, lonely boy who never had any money of his own to spend; so one clear and sunny day, when he saw a crisp, brand-new dollar bill lying on the littered, dirty sidewalk, he jumped with delirious joy," may be better than, "Johnnie was a poor boy. One day he was happy because he found a dollar." However, "What luck! A whole dollar right there on the sidewalk! To Johnnie that was a fortune," is as expressive as the first example and far less ornate.

As in every area, the manner in which the teacher deals with language will affect the amount of creative expression which results. Rejecting comments, boring vocabularly assignments, copying papers over, looking up misspelled words, being told that someone else's work is much better than one's own - these methods discourage rather than foster creative writing and speaking. Usage and spelling are not unimportant; but, if there is too much stress on this, many children will adopt the line of least resistance - short, dull, two - or three sentence pieces of work which are easy to copy over and use words which can be spelled.

The teacher who encourages each child to improve at his own level, gives worth to every effort, and provides enough time for children to work out their ideas fosters creative expression. The teacher who gives children specific assistance in plot ideas, language development and the processes of putting things together will be the kind of helping person who fosters children's creative expression.

Elizabeth Hunter is an associate professor of Education at Hunter College, City University of New York

PROGRAMING FOR THE GIFTED CHILD

by:

Paul D. Plowman

Abstract: The trend in programing for the gifted is marked by a greater concern for individualized instruction in which attention is given to the development of unique traits and skills based on conceptual research of the nature of intellect. Typical approaches such as regular class instruction, private study, acceleration, and counseling are described, and the need for ongoing evaluation is pointed out.

Intellectually superior children are often the neglected children in the classroom. Professional recognition of and approaches to overcoming this problem are points of departure in considering aspects of programing.

TRENDS

In recent years there has been a shift in emphasis - from a national defense-sputnik approach, which viewed the gifted as a resource or a commodity, to concern for the full development of the individual child for his own sake.

In the first approach, improvement of society is a major purpose in programs for the gifted. These programs portray the gifted students as tools of the state for making advances in science and technology and for solving problems of communication and production; they are seen as workers to be exploited for the general welfare. The other approach uses the more fundamental tenet of the democratic faith stressing the sancity, dignigy, and full development of the individual, rather than just the individual's contribution to society. Further, these programs "perform the priceless, rare task of developing specific genius, 'that' in Leonardo daVinci which is exclusively Leonardo daVinci [Ward, 1963]." This approach seeks to develop creative and compassionate human beings who have a reservoir of useful knowledge, skill in higher intellectual processes, and values which direct them toward that which is noble and good. These programs do not want judgmental, decisive, habitualized individuals who see everything as either right or wrong, good or bad - but, rather, individuals free to toy with an array of ideas, to laugh at novel associations of words and things, and to produce new products, ways of doing things, and knowledge. Increasing interest is evident in guidance and counseling, in art and music, in values and philosophy - services and courses guided by objectives in the affective domain.

There has also been a shift from euphoric proclamations about the values of something nebulous called enrichment to development of more specific programs based upon such concerns as individualizing instruction, extending awareness, providing an abundant environment, exploring subjects in breadth, understanding them in depth, seeing many alternatives, relating ideas and facts within different subject areas, and meeting guidance needs of boys and girls. An increasing number of school districts appear to be moving from initial emphasis on hastily contrived enrichment or acceleration programs to sound, comprehensive programs including three or more program prototypes. To improve the quality of educational experience, these districts aim to develop those perceptual, creative, and intellectual traits which characterize the productive mind through lesson goals, classroom methods, assignments, and evaluation procedures, suggested by conceptual research on human intellect and creativity and demonstration programs featuring differentiated learning experiences.

Emphasis is likewise shifting from sole preoccupation with the "clean, polite, and orderly" academic achiever to all gifted children - the underachiever, the highly creative child, the educationally deprived child, and the highly gifted child.

ASSESSMENT

Programing starts with an assessment of a child and proceeds to placement in environments and experiences. These will be planned to foster behavioral characteristics of the gifted child, and to provide a milieu in which it will be possible to ferret out and develop his uniqueness.

Characteristics rating sheets, screening and nomination forms, case study records, and child study programs may suggest that a given gifted child needs access to, for example, intellectual peers, exemplary individuals, empathetic mentors, or special resource persons. A need may be indicated for access to ideas about himself, the nature of man, and the nature of human institutions. Other clues might suggest the desirability of acquainting a child with certain social, economic, cultural, ecological, and educational factors which affect life and living. For example, a child might compare environments which provide much freedom for individuals with those characterized by many restraints.

Programing is a continual process and as such must be based upon continual appraisal of development of interests, knowledge, intellectual skills, traits of creativity, attitudes, aspirations, and values. At any given time, a teacher should be aware of where each of his students is with respect to knowledge, significant concepts, and skills. If the teacher is expected to provide learning experiences that begin at the level of present accomplishment and extend to higher levels, he must have comprehensive knowledge of present attainment. To be sure, learning is not always characterized by smooth, sequential development. The teacher, nevertheless, can attempt to articulate learning sequences and episodes in such ways that there appears to be a natural flow of ideas and development form one position, assumption, or knowledge base to the consideration of a whole galaxy of ideas. This task certainly calls for skill in bringing into focus a dynamic picture of development of individual human beings. It requires the teacher to be both an educational diagnostician and a prescription expert. Successful performance of these roles is dependent upon specific information - a case study record rather than a cumulative folder containing a mishmash of material.

TYPES OF PROGRAMS FOR THE GIFTED

Regular class enrichment. Enrichment in regular classes is often advocated for gifted children who may not be physically or socially mature enough for special classes or grade level acceleration. This type of program might fit school settings where no formal program for the gifted has been established. It is sometimes initiated in schools that have community attitudes which favor enrichment over other types of programs, but have limited funds. In schools where teachers with broad cultural backgrounds ordinarily group for instruction, individualize assignments, and meet different needs within the regular classroom, this type of enrichment program is a logical approach. In general, enrichment programs in regular classes should provide greater breadth and depth of learning, more opportunities for developing creative behaviors, increased emphasis on rich social experiences, and ample freedom to pursue independent study.

Private study. Correspondence courses and certain tutorial and independent study programs are pursued most satisfactorily by children who require a minimum amount of direction from the teacher. However, children programed into correspondence courses should meet with a teacher once a week to review what has been learned, to plan next steps, and to resolve any problems.

Acceleration. Acceleration or flexible progression appears to work best for high achieving gifted children who are emotionally and physically mature and who seek opportunities to associate with older children and adults. Such programs thrive best in communities where equal education is understood as providing opportunity to progress according to individual ability rather than as providing identical experiences.

Counseling. Special counseling is of crucial importance to the low achieving gifted child, the highly creative gifted child, and the gifted child with special psychological needs. Classes designated just for the gifted are often for high achieving pupils and pupils mature enough to be challenged by and to profit from increased competition. Some combined group counseling and special class provisions have been planned for underachievers and other gifted children with special problems or needs. Although certain kinds of programs are especially appropriate for certain kinds of gifted pupils, involvement in any of these programs might transform a rebellious, underachieving gifted child into a child who because of sufficient challenge and interest no longer rebels against his teacher and his school, has due regard for other persons while expressing his individualism, and who reduces the gap between his potential and actual achievement.

Ideally, a child moving into a new community could be placed initially in a somewhat sheltered enrichment program. After becoming acclimated, he might become a candidate for special class offerings or acceleration. The day may come when each gifted child will have opportunities within each school year for enrichment, flexible progression in the acquisition of skills and knowledge, special class experiences, independent study, and counseling.

ATTITUDES

If we can describe with reasonable accuracy (a) the philosophical stance of a given community with respect to education, (b) the sophistication of its teachers, and (c) provisions made for needed materials, we should have the knowledge necessary for building successful programs and for programing children with certain traits into certain classes and learning experiences.

A promising practice in fostering attitudinal readiness and motivation of teachers and in building specialized teaching skills is the use of self assessment procedures such as those employed by the Illinois Program for Gifted Students and by "Excellence in Education," a research project in the Los Angeles area. In some communities it would be necessary to start an enrichment program by providing extra books and some consultant service. After this program had been accepted in the community, it might be possible to offer special classes and counseling. In time, teachers, consultants, counselors, administrators, and school board members might take an honest and thorough look at all the possibilities for full development of children and youth.

MOBILIZATION AND USE OF RESOURCES

Programs in school districts should be under the administrative responsibility and leadership of one person; in districts of 5,000 average daily attendance, this position should be a minimum of a half time assignment. His responsibilities in programing require the mobilization and prudent use of resources, which may lead to (a) improving competencies of consultant, instructional, and counseling personnel; (b) developing materials, flexible scheduling, and team teaching; and (c) using out of school persons and facilities. Teachers who work with the gifted know that they thrive on vast quantities of material. Teachers need help in getting the materials, in tailoring individual assignments, and in experimenting with new ideas. For example, there are in most communities, including rural areas, a surprisingly large number of special resource persons - forest rangers, engineers, physicians, teachers, military personnel, water management persons, and meteorologists, to name a few. Some may be exemplary as creative individuals, as authorities in certain fields, as inspiring persons, as problem solvers, or as problem finders. Principals also survey staff members and community people to find special hobbies, travel experiences, career backgrounds, and abilities to match with gifted students.

In a number of communities school district personnel are supported by associateons which help (a) mobilize special resource persons, (b) develop special classes and other learning experiences, (c) provide teachers with scholarships and summer grants, (d) purchase certain professional materials, and (e) assist teachers in the performance of certain chores such as organizing materials, arranging displays and learning centers, typing, and duplicating materials. A national organization with similar goals is the National School Volunteer Program.

FEEDBACK AND EVALUATION

As in program development, it is reasonable to expect districts to start at one level of evaluation and gradually progress to more sophisticated levels. In fact, it may be quite useful after the first year to ask involved persons - teachers, parents, and children - what they think about the special provisions; however, the possibility of getting a general halo or Hawthorne effect must be recognized. This approach may show ideas and attitudes generated by program activities.

The newly developed Ward-Renzulli Diagnostic and Evaluation Scales for Differential Education of the Gifted would be of help to persons wishing to appraise programs. Results of field testing these scales in North Carolina, New York, Illinois, and California have been reported (Ward, 1967).

SUPPORTIVE TECHNOLOGY

It is common knowledge that we have the technical means of (a) keeping track of student programs; (b) providing pertinent information needed in learning, teaching, and guidance; (c) simulating and allowing pupils to manipulate simulated social and scientific conditions; (d) providing immediate student responses to the teacher and categorizing these by such taxonomies as the Structure of the Intellect (Guilford & Merrifield, 1963) or Bloom's Taxonomy of Educational Objectives (Bloom, 1956); and (e) instructing and counseling children and youth.

Within the foreseeable future, we may design and acquire integrated systems for developing human potentiality. Important aspects of such systems would be electronic equipment for retrieval, display, and manipulation of data; experiential films for extending awareness and for overcoming cultural deprivation and rural isolation; computer assisted instruction and guidance programs; display systems that show teachers instantly which students do and do not understand instruction; simulations; flexible scheduling; learning stations at home and at other places away from school; closed circuit television; and improved programs in educational television. Envisioned now is the possibility of having paid access via one's telephone to college and high school courses, skill development programs, technical information, facts helpful in selecting a career, and enriched leisure time activities. The emphasis will be upon "turning people on" - upon making man more rational, more creative, and more humane. Basic to this will be an expansion of man's own consciousness and an understanding of himself.

TYPOLOGICAL AND TAXONOMIC APPROACHES

By knowing the characteristics and needs of the group we call gifted it is possible to plan instructional programs particularly suited to them as a group or typology. This is especially true when we think about developing translation skills, skills of analysis, the ability to generate many possible solutions to a given problem, and the ability to evaluate an event or situation by external criteria or by one's own system of values. This approach is in fact an intermediate step between generalized whole class instruction of heterogeneous groups of children and individualized instruction of one child. While pointing out the value of this approach, one must also indicate that gifted children vary greatly in attainment,ability,creativity, attitudes, motivation, and interest. Certain programs are needed for subgroups such as the underachieving gifted child, the high achieving gifted child, and the highly creative child. It may be necessary to do some grouping on the basis of interest as well as on the basis of aptitude.

In order to do this grouping, the taxonomic approach may be used. Taxonomies such as those proposed by Bloom (1956), Guilford (1963), Bruner (1960) and others provide us with categories, principles, and in a few instances with hierarchial lists of objectives. They help us to differentiate among experiences and to know which are likely to be uniquely suited to certain types of children.

Using the Cognitive Domain of Bloom's Taxonomy of Educational Objectives, teachers may focus initially on developing banks of classroom questions, examination questions, and assignments. This may be aided by Sanders' (1966) book and through use of the 14 California Project Talent Films. Each of the films is designed to help teachers understand and to foster a different intellectual skill. A California Project Talent publication on anthropology (Robeck, 1966) demonstrates use of Guilford's Structure of the Intellect as a lesson planning and curriculum construction tool.

It is interesting to note that persons in a number of school districts have reported that emphasis upon gifted child programs has resulted in improvement of the total educational program. It seems that typological and taxonomic approaches - with the requirements of careful identification, a case study on each child, a written plan which describes objectives, special facilities, special experiences, and techniques of evaluation - do point the way toward developing and improving programs in other areas of special education.

CONCLUSION

Space does not permit thorough consideration of all aspects of programing. Certainly educators also would want to give more attention to physical and psychosocial environments. Each of these might be a topic of a series of articles and additional research.

This article defines some of the parameters of programing for the gifted, shows some trends, and proposes certain steps that should lead to professional growth. Programing for the gifted can result in improvement of the total educational program. It can help each person involved to become a more open, more productive, and more interesting human being.

REFERENCES

Bloom, B. (Ed.) Taxonomy of Educational Objectives. Handbook 1: Cognitive Domain. New York: David McKay, 1956.

Bruner, J. The Process of Education. New York: Vintage Books, 1960.

Guilford, J. P. & Merrifield, P. R. The Structure of Intellect Model: Its Uses and Implications. Reports of Psychology Laboratory. No. 24. (Los Angles: University of Southern California, 1963.)

Robeck, M. C. How the Anthropologist Studies Man: The Chumash Indian. Sacramento: California State Department of Education, 1966.

Sanders, N. M. Classroom Questions - What Kinds? New York: Harper & Row, 1966.

Ward, V. S. The Differentiated Education Process. In Office of Education, Talent - A State's Resource - A State's Responsibility. Bulletin No. 34. Washington, D. C.: Office of Education, US Department of Health, Education, and Welfare, 1963.

Ward, V. S. Program Evaluation in Differential Education for the Gifted: Myth and Reality. In The Council for Exceptional Children, CEC Selected Convention Papers 1967. Washington, D. C.: CEC, 1967.

Paul D. Plowman is Consultant in Education of the Mentally Gifted, Bureau for Educationally Handicapped and Mentally Exceptional Children, State of California Department of Education, Sacramento.

CHAPTER VI

MENTAL RETARDATION

by

David L. Merricks

In this chapter, we shall attempt to develop a more comprehensive understanding of mental retardation and the effects this condition has upon the exceptional individual who happens to be mentally retarded. In the first article, Stevens has presented an excellent overview of mental retardation. First he discusses the condition of mental retardation and then looks at the effects of mental retardation as it effects the individual, his family, and his community. He discusses several approaches and services for the mentally retarded. Finally, he concludes with the community's responsibility for the mentally retarded. An interesting exercise would be for you to answer the following questions before you read the article and then answer them again after you have read the article.

1. *What is mental retardation?*
2. *What is the extent of the problem?*
3. *What is the nature of mental retardation?*
4. *What effects does the condition have upon a family?*
5. *... on a community?*

6. *What are some of the current approaches to programs and services for the mentally retarded?*

7. *What are the community responsibilities for the mentally retarded?*

OVERVIEW

Harvey A. Stevens

Concept of Mental Retardation

Mental retardation refers to subaverage general intellectual functioning which originates during the development period and is associated with impairment in adaptive behavior (Heber, p.3).

This is the official definition adopted in 1959 by the American Association on Mental Deficiency. It is in the context of this definition that this text is oriented. For a more comprehensive discussion of definitions refer to Benton's chapter on psychological evaluation.

The term "mental retardation," as used in the above definition and in this text, also encompasses the meanings previously incorporated into both descriptive terms, such as mental deficiency, feeblemindedness, and mental subnormality, and the historical terms - amentia, idiocy, and imbecility.

Heber stated that the "choice of the term 'mental retardation' was predicated on the basis that it appears, at present, to be the most preferred term among professional personnel of all disciplines concerned" (Heber, p.3).

The definition recognized that mental retardation is now viewed as a reversible condition. This is a departure from the classical and historical concept of "once mentally retarded, always mentally retarded." It is a term describing the current status of the individual in regard to his intellectual functioning as well as his adaptive behavior.

The _Manual on Terminology and Classification in Mental Retardation_ concludes its discussion of definition by stating,

> ...an individual may meet the criteria of mental retardation at one time and not at another.
> A person may change status as a result of changes in social standards or conditions or as a result of changes in efficiency of intellectual functioning, with level of efficiency always being determined in relation to the behavioral standards and norms for the individual's chronological age group (Heber, p.4).

Extent of the Problem

Mental retardation affects and disables 10 times more individuals than does diabetes, 20 times as many as tuberculosis, 25 times more than muscular dystrophy, and 600 times more than infantile paralysis. Only mental illness, cardiac disease, arthritis, and cancer affect a greater number of individuals (President's Panel on Mental Retardation, p.197).

It was estimated in 1962 that more than 5 million individuals were retarded. At the present birth rate and the rate of prevalence of mental retardation, it is estimated that 126,000 infants born each year will be classified as being mentally retarded sometime during their lifetime. It is also estimated that by

1970 there will be more than 6 million mentally retarded persons in the United States; more than half will be children. Over 200,000 persons - children and adults - were cared for in 124 state-supported residential facilities at a cost in excess of 300 million dollars. More than 250 million dollars was spent in support of special educational programs conducted by the public schools. In 1963 the national government will spend in excess of 128 million dollars in its programs to combat mental retardation (Secretary's Committee on Mental Retardation, p.1).

Over 400,000 adults are so retarded that they are unable to participate in competitive or productive employment. The loss in economic output due to the total absence of productivity and under-productivity was estimated to be more than several billion dollars. During World War II, 716,000 men were rejected because of "mental dificiency" (President's Panel, p.2).

About 96 per cent of the nation's mentally retarded people are cared for outside of residential facilities (Secretary's Committee, p.11).

Of greater significance than the loss to our nation's security and economy is the untold and immeasurable suffering to the parents, brothers and sisters, relatives and friends of the mentally retarded individual. It is impossible to describe adequately the feelings of parents when they eventually realize that their mentally retarded child will never be capable of living in a normal childhood or ever become, as an adult, a participating and contributing member of society!

It is a relatively simple task to elicit, from an "intellectually normal" blind, deaf, or physically handicapped person, his attitudes or his feelings toward his own handicapping condition as well as his own concept of its effect upon his parents, relatives, or friends. The retarded individual is incapable of making such observations or reaching such conclusions.

This brief discussion serves to highlight the magnitude of this problem. Concerted action is required in order for these individuals to take their rightful place in our society and, more important, to assume their full share of responsibilities in support of our democratic way of life.

What is Mental Retardation?

Mental retardation is a constellation of syndromes. It is not a disease, although it may be the result of a disease. It is more accurate to describe it as a condition that affects from 2 to 3 per cent of the total population. Its principal characteristic is retarded intellectual development and inability to adapt to demands of society.

Based on current knowledge, more than one hundred causes of retardation have been identified. It may be caused by factors which affect the embryo or fetus during development. It may affect the infant during the birth process, shortly after birth, or during the child's early years of growth and development. With present techniques of diagnosis it is possible to make a positive and precise identification of the cause of mental retardation in only 15 to 25 per cent of all cases. Our present state of knowledge does not permit definitive diagnoses in the remaining 75 to 85 per cent.

The discovery by Tjio in 1957 of the exact number of chromosomes in the human cell has renewed investigations into the genetic factors associated with the etiology of a variety of clinical entities. Mongolism is now the classical example of chromosomal aberration with mental retardation.

Lejeune of France identified, in 1959, the extra chromosome in mongolism and has further established that this chromosomal aberration is responsible for tryptophane metabolism observed in mongolism. There now exists the possibility that this discovery may open up an entirely new field of collaborative research, "human genetic biochemistry." The chapters dealing with genetics and biochemistry should be of particular interest to both the geneticist and the biochemist interested in this aspect of the problem.

There are numerous factors, in addition to the genetic components, which may affect the embryo or the developing fetus, including infections, poisons, and intoxications in the mother's body during pregnancy. Poor nutrition of the mother during pregnancy may later affect the intellectual development of her child.

It has been demonstrated, for example, that contraction of German measles during the first trimester of pregnancy, Rh Blood factor incompatibility, lead poisoning, and such metabolic defects as phenylketonuria (PKU) and galectosemia may produce a relatively small number of mentally retarded individuals.

Many of these conditions have responded to specific modalities of treatment, and preventive therapeutic measures have been developed for others. Fortunately, some of these conditions are amenable to correction. However, additional preventive methods must still await discovery. The etiological aspects of these clinical entities are of particular significance to those interested in neuropathology and teratology.

Organic pathology occasionally may be demonstrated as the result of injury or disease occurring during or shortly after birth. In those instances where observable clinical evidence is present, there may be marked neurological damage which will result in profound or severe mental retardation. Trauma received during the birth process and oxygen deprivation due to delayed breathing following birth are frequent causes of mental retardation. Severe injuries to the brain following an accident, cardiac failure during or following surgery with restoration of life, and partial drowning with restoration of breathing have also produced profound and severe mental retardation.

Improved and new obstetrical and surgical techniques as well as improved highway safety measures will result in the reduction of the number of cases due to brain trauma.

There are a relatively small number of cases of mental retardation caused by abnormal tumor-like growths within the brain. Several of these entities are hereditary in origin. In a large number of cases, pathological conditions within the brain resulting in mental retardation are still of undetermined etiology. The exact relationship of these pathological conditions to mental retardation must await further research. Thus, post-mortem examination of these cases is most helpful to the neuropathologist interested in the etiological aspects of abnormal growth and development.

By far the largest group of the mentally retarded is composed of those individuals for whom there is no demonstrable pathology in the brain (at least with present techniques of identification). This group is usually classified as being mildly mentally retarded. There is some evidence to suggest that this group may be the result of yet to be determined or understood genetic factors. A number of these cases are born of mothers who lack adequate prenatal and postnatal care. A large number are born and reared in deprived environments. There is ample evidence to indicate that there is a positive correlation between the prevalence of mental retardation and the socio-economic status of the family and the community. Such conditions foster a lack of opportunities for learning that somehow interferes with normal intellectual development during the early developmental years.

Improved living conditions for a large segment of our society are necessary in order to reduce the causative factors leading to this type of mental retardation. The discussion in this text relating to personality development, learning, education and vocational rehabilitation, and environment is particularly meaningful to those concerned with increasing the effectiveness of the mildly retarded.

Nature of Mental Retardation

As a group, the mentally retarded are considered heterogeneous; therefore, the nature and degree of retardation vary considerably. To date, no system devised to classify the degrees or levels of retardation has been completely acceptable to all professional disciplines concerned. The official classification of the American Association on Mental Deficiency uses intelligence test scores as its basis for categorizing the degrees or levels of mental retardation (Heber, p.57).

The degree of mental retardation suggests the probable level of functioning the individual is capable of achieving. It also suggests the kinds of problems that one might anticipate they will create and present to themselves, their families, and their communities. These levels of retardation become useful when attempting to select retarded individuals for participation in specialized programs of care, treatment, education, and rehabilitation.

TABLE I

Degrees of Mental Retardation

Level	Descriptive Term	Intelligence Quotient (IQ) Range
Level I.....	Profound	Below 20
Level II....	Severe	20-35
Level III...	Moderate	36-52
Level IV....	Mild	53-68

A brief discussion of the various levels of mental retardation is intended to show that mental retardation is a generic term describing four distinct groups. Each group possesses rather distinct characteristics and presents specific problems requiring specialized programs for their care and management. It should also be recognized that there is considerable variation between individuals, even within each group.

The Profoundly Mentally Retarded

Those individuals who classify as "profoundly mentally retarded" usually have considerable central nervous system impairment, and organic pathology is present to an unusual extent. Many present other types of handicapping conditions in addition to mental retardation, such as blindness, deafness, epilepsy, and gross physical anomalies. Speech usually is absent. Their motor development is very poor. Frequently one may observe patterns of repetitive behavior such as rocking movements, head banging, biting of hands and lip biting. Their life expectancy may be assumed to be far below average.

The profoundly retarded individual is considered, on the basis of current knowledge and practices, incapable of profiting from any type of training or education. Most of these individuals require lifelong supportive residential care. Many will be bedfast throughout their lives. Relatively few families are capable, physically or financially, to provide for this type of care and management in their own home.

When a profoundly retarded child is retained in his own home, it usually necessitates considerable alteration in normal family living and routines. Family plans must be made around this individual and not the needs of other family members, thus creating problems in the total family unit.

The Severely Mentally Retarded

Those persons who are classified as being "severely mentally retarded" present some of the same characteristics and problems associated with the "profoundly mentally retarded," but to a lesser degree.

In a large number of cases there is considerable damage to the central nervous system as well as organic pathology and other handicapping conditions.

The severely mentally retarded may be viewed as being above the level of total dependency throughout their lifetime. Many require intensive and extensive medical and nursing care; while others, because of organic brain damage, are somewhat difficult to control. Motor development is retarded, as are language and speech.

A large number of the severely retarded will spend at least a portion of their lifetime in a residential facility. Lifelong supervision and support are required. Many, particularly those with intelligence quotients (IQ's) between 25 and 35 can respond to and profit from systematic training in self-help skills. With intensive and prolonged training, they may function in a highly controlled and supervised terminal sheltered workshop facility as adults.

Those severely retarded persons who do not present complicated problems of care and management may be fairly adequately cared for in their own home. Some, after reaching adulthood, may require residential care when one or both parents are no longer living.

The Moderately Mentally Retarded

The moderately retarded individual presents less complicated neuropathological conditions as contrasted with the profoundly and severely retarded. Fewer types of other handicapping conditions, such as blindness, deafness, epilepsy, and physical anomalies, are present. In most cases, motor development approaches normal. Language and speech can be developed. Those with organic brain damage and epilepsy may present objectionable social behavior patterns as well as difficult-to-manage behavior. Self-help skills in toileting, feeding, and, usually, bathing can be attained. As a group they may be viewed as being semidependent.

The moderately retarded are capable of profiting from organized formal programs of systematic training aimed at development of self-help skills and social awareness. The self-concept is capable of being developed at this intellectual level. A few are capable of attaining a minimal level of academic achievement, possibly third grade.

With careful training and supervision, many of the more physically and socially adequate moderately retarded are capable of achieving partial self-support in a sheltered employment situation, and a few are capable of maintaining a position in competitive employment. As adults most of them will require frequent supervision and guidance in many of their personal, social, and economic problems.

The Mildly Mentally Retarded

The largest group of the mentally retarded (probably 85 per cent of all retarded) is represented by the mildly retarded. They approach the low average in terms of physical characteristics. They are usually slow in development in walking, talking, feeding themselves, and toilet training. Few observable physical signs are present to assist in etiological diagnosis. Other handicapping conditions appear in a frequency slightly higher than in the average general population. Motor development is relatively normal. Eye-hand co-ordination is somewhat retarded below normal expectancy. Identification of a child as a mild retardate is usually not made until after at least one, possibly two, years of regular school experience.

Social and communication skills may be developed in carefully structured special class and related educational programs. The mildly mentally retarded can also profit from systematic training in arts and crafts and arithmetic at the elementary education level. They are incapable of completing secondary school requirements, although many can participate in a special class program located in a secondary school. They are capable of competing, with a moderate degree of success, in selected non-academic subjects at the secondary school level, such as physical education, arts and crafts, manual arts, etc.

If the mildly retarded are educated in the regular classes, they will present a variety of problems to the regular teacher. Some of these problems are: (1) excessive amount of teacher-time for instructional purposes, (2) antisocial behavior, (3) objection to their presence in school by other teachers, and (4) inability to conform to social standards of the class. They frequently repeat one or more grades. Their peers will isolate and reject them.

Occupational skills may be developed, and, in a few cases, semiskilled job levels may be attained. Automation in industry may displace many of these individuals.

Some mildly retarded individuals have their problems of learning and adjustment further complicated by a serious social or emotional problem. As a result, some will require residential care in order to protect themselves, other family members, and society. Many of this latter group come into conflict with the authorities. The more serious offender may require care, education, treatment, and management in a security-type residential facility. The less serious cases may only require short-term placement in a regular residential facility for the mentally retarded.

Many of this group marry and have families. In such cases they usually encounter some difficulty in managing their own affairs. Frequent unemployment precipitates social welfare problems.

As adults, many are capable of sustaining themselves with only minimal assistance, particularly those having an intelligence quotient of 60 to 68.

Effects of the Mentally Retarded on the Family

The presence of a retarded child in a home presents a variety of complex problems involving all facets of family life and all family members.

The nature and level of mental retardation of the child, the socio-economic status of the family, the emotional stability of the parents, the emotional climate the parents create in the home, as well as the level of community tolerance for the mentally retarded, all affect the manner in which the parents plan to meet the needs of their retarded child. These same factors will also determine how realistically the family accepts the child. Moreover, the constant presence in the home of a retarded child, who presents obvious physical stigmata, sometimes creates social rejection of the family by relatives and friends.

Many families, hoping for greater community acceptance, have moved to new communities, only to be disillusioned. Families frequently change physicians in the hope of obtaining additional or new medical information which is more acceptable to them.

The cost of medical and nursing care often is far beyond the financial abilities of families having a profoundly or severely retarded child. Many families maintain their child in private facilities at costs far beyond their means and, often, at great sacrifice to themselves and other children.

It must be recognized that the effect of family life on a profoundly retarded child reared in a high socio-economic status family will be totally different from that on a mildly retarded child reared in a family of low socio-economic status. The levels of aspiration of parents for their children greatly influence the attitudes the parents have for their children.

The lack of adequate parent counseling and lack of community services frequently complicate the family's ability to cope with the care and management of their child in their own home or to make realistic plans for their child's future.

Effects of the Mentally Retarded on the Community

Individually and as a group, the mentally retarded present a wide variety of complex educational, social, and welfare problems to the community as well as to their families. The presence of even a small number of retarded persons in a given community is cause for concern and requires concerted action on the part of community leaders to plan for the needs of the individual and the family. The public, in general, is not always fully cognizant or understanding of the nature of mental retardation, nor is the public always aware of what can or needs to be done for the retarded individual or his family.

The profoundly and severely retarded do not always present to the public the same type of problems as do the moderately and mildly retarded. The former are usually retained at home or placed in residential facilities and, thus, do not come into frequent contact with the public; while the latter do make attempts to participate in a variety of community activities. It is at this point that community attitudes toward the retarded come into sharp focus.

While only limited data are available, it is known that many families disintegrate through separation and divorce because they are unable to effectively resolve their problems. This action precipitates many community problems; some are of a financial nature.

Not too infrequently one or more members of a family will require psychiatric services at community expense as a direct result of the presence of a retarded child in the family. The inability of a family to resolve emotional conflicts growing out of their inability to cope with the problems of acceptance, care, and management of the retarded child often requires a constellation of community services to help such families.

The sheer economic costs to states of providing adequate residential facilities for the ever increasing number of mentally retarded is reaching a level where many are now seeking alternate measures and placing greater responsibility upon the community and families to care for their retarded child. Long residential waiting lists are creating new kinds of problems for families and communities.

In many states the laws relating to the mentally retarded do not reflect current knowledge. This is particularly true in regard to guardianship, commitment to residential facilities, the right to make contract, protection of themselves as retarded individuals, criminal responsibility, and the like. The adult retardates who are employable may encounter long periods of unemployment during periods of economic decline, thus requiring community support and supervision.

Many communities, through public education, are attempting to support the families by creating a variety of community-centered services as well as by developing a more positive public awareness and tolerance for the mentally retarded.

Current Approaches to Programs and Services for the Mentally Retarded

Renewed efforts toward the resolution of the problems of the mentally retarded began following World War II. The year 1950 witnessed the creation of the National Association for Retarded Children. This organization, composed chiefly of parents of mentally retarded children, has done much to develop and stimulate a public awareness of the problems of mental retardation. It has also been most effective in urging state legislatures to enact laws fostering improved and new programs and services for the mentally retarded. It has been instrumental in creating several state commissions to delineate total, comprehensive, and state-wide plans of services for the mentally retarded. Increased interest on the part of the federal government is partly due to their efforts.

The American Association on Mental Deficiency, organized in 1876, whose members are from the professional disciplines of medicine, education, psychology, and social work and administration, has played an important role in this field. In recent years, through its committee for "technical planning in mental retardation," it has developed and conducted numerous conferences and studies in the broad areas of (1) research, (2) training of personnel, and (3) programming.

The Council for Exceptional Children of the National Education Association has stimulated the development of teacher-training programs, assisted in delineating the qualifications of teachers of the mentally retarded and, most important, encouraged the dissemination of scientific information on the broad field of special education through state, regional, and national conferences and publications.

Numerous private foundations and schools have also fostered and conducted a variety of programs and services. The 1962 International Achievement Awards in mental retardation, sponsored by the Joseph P. Kennedy, Jr. Foundation, is an excellent example of support given to stimulate public awareness of, and encourage increased professional participation in, the problems of mental retardation. The annual Wood School Conferences (Langhorne, Pennsylvania) have also contributed to a better understanding of the exceptional child, particularly the mentally retarded.

Efforts to develop a variety of programs and services (U.S. Department of Health, Education, and Welfare, pp. 7 and 8) to meet the multiplicity of needs of the mentally retarded are currently directed toward the following broad areas:

1. Diagnostic and clinical services.- There are over 90 clinics specializing in services to the retarded. Over half were established within the past five years. The 20,000 children and adults aided in 1960 represent only a small fraction of those who need the services.

2. Care in residential institutions.- Today there are over 200,000 mentally retarded patients in such institutions, approximately 10 per cent more than there were five years ago. The waiting lists continue to grow. Increases in both facilities and manpower are necessary.

3. Special education.- The number of mentally retarded enrolled in special educational classes has been doubled over the past decade. Less than 25 per cent of the retarded children have access to special education. Moreover, the classes need teachers specially trained to meet the specialized needs of the retarded. To meet minimum standards, at least 75,000 such teachers are required.

4. Parent counseling.- Counseling of parents is now being provided by private physicians, clinic staffs, social workers, nurses, psychologists, and school personnel. Although this service is still in an experimental stage, it offers bright prospects for helping

parents to better understand their own social and emotional problems.

5. Social services.-

Social services provided for mentally retarded children and adults include casework, group work, work placement, foster home care, and day care. These services are an integral part of clinical and rehabilitation programs. Social workers are also active in community organizations and parents' groups.

6. Vocational rehabilitation.-

In the past five years the number of mentally retarded rehabilitated through state vocational agencies has more than tripled - from 1,094 in 1957 to 3,562 in 1961. In terms of the number who could benefit from rehabilitation services, this number is very small. New knowledge and new techniques are needed, for over 25 per cent of those leaving the special classes still cannot be placed in competitive employment.

7. Preparation of professional personnel.-

The federal government is now promoting the training of leadership personnel as education, rehabilitation, research, and medical and welfare specialists. In addition, programs are being provided that will increase the competence of the health professions in providing services for retarded persons. Nevertheless, shortages of qualified personnel remain one of the major obstacles to providing services to retarded individuals and their families.

8. Research.-

Support for research into the causes, prevention, and amelioration of mental retardation has been greatly increased during the past five years. Considerable progress has been made in the biological aspects of this problem as well as in the behavioral areas. However, we must await major breakthroughs in several areas before we will be able to achieve a more intelligent understanding of the genetic, pathological, psychological, sociological, and environmental aspects of mental retardation.

An acceleration of programs in these broad areas may be achieved by developing a greater public awareness of the problems of mental retardation.

Community Responsibility for the Mentally Retarded

We are a society possessing strong motivations to assist individuals in need. The outstanding characteristic of our society is the high value we place upon the life of each individual. In this frame of reference, the dignity and the integrity of each individual must be preserved, sustained, and protected.

For a variety of reasons many are unable or cease to contribute and become dependent members of our society. Others, willfully or unknowingly, become a hazard or a threat, and, as a result, these individuals must be isolated for the good of society; thus they become dependent members.

In attempting to meet the needs of these dependent members, our society must recognize and observe the limitations upon infringements of the individual's initiative and freedom. Equally as important is the need to weigh such limitations against the justice and security of society as a whole.

It is important that we note that most members of our society are capable of meeting their own needs by themselves or in concert with members of their immediate families.

Society, then, has two basic functions in meeting the needs of its dependent members. First, it must so organize itself that opportunities are afforded each individual to meet his own needs, and, second, it must develop methods and techniques by which the members can efficiently and economically organize to meet the needs of the individual who is unable to meet his own needs.

The ultimate goal is provision of carefully designed, well-organized, and coordinated services and programs of a social welfare nature. The government is one agency that can accomplish these tasks. Many private agencies in our society are capable of fulfilling some of the same functions as government, particularly in the social welfare field.

The ultimate role that government is to play in meeting the social welfare needs is almost entirely dependent upon how our society wishes to view the government's role and the nature and extent of the responsibility it wishes to assign government. It must also consider how it views the capability of private agencies, as contrasted to government agencies, in meeting specific social welfare needs of the individual and the group.

It has been suggested that the government's role should not be determined by a set of "pious principles," but rather, the test should be: "Will the use of government yield advantages unobtainable through voluntary efforts?" "Will it, in the specific instance, damage essential qualities of health or welfare services so that standards of performance will be impaired?" "Will it interfere unduly with the personal and economic freedoms and responsibilities of either the provider or the recipient of the services?" (U.S. President's Commission on National Goals, p. 252).

We live in an era when the public frequently looks to government - federal, state, and local - to assume an increased responsibility for the health, education, and welfare needs of an ever increasing number of its dependent citizens. This demand is being extended to various provisions for handicapped individuals. To an ever increasing degree, the responsibility is being accepted by government.

This development may be viewed as being both logical and practical, since government is able to attain goals not attainable by individuals, by small groups, or through isolated local efforts. It is, however, a widespread misconception that the problems and needs of the mentally retarded can be resolved merely by providing adequate financial support for the necessary services and needed research.

Providing all of the necessary services, per se, will not solve the multiplicity of problems for the vast majority of the mentally retarded. We are dealing with individuals who, as a group, are heterogeneous and demonstrate great extremes in abilities and needs. These individuals require an accepting environment in order to develop reasonably acceptable behavior patterns and acceptable levels of social and economic attainments. An environment typified by genuine public understanding and acceptance is required; positive attitudes, rather than those based on sympathy or misconceptions, must prevail. The community's threshold of tolerance for the mentally retarded must be raised.

The efforts of society on behalf of the retarded are purposeful insofar as they facilitate the individual to function in society to the maximum of his ability. The patterns of organization and administration of services for this group must be based on that criterion. The pattern calls for co-ordination and integration of efforts by the government and the community, with both sharing responsibility and active participation.

Community and individual citizen participation is necessary if acceptable public attitudes are to be developed and opportunities extended so that the retarded can demonstrate their ability to take their place in the life of a community.

Government has the resources, the administrative organization, and the technical staff to provide for such basic services in the areas of prevention, diagnosis, treatment, education, rehabilitation, care and management, and research. It lacks the general flexibility and sensitivity for creating effective personal involvement to the individual citizen to achieve the goals felt to be desirable.

Equally important in the provision of adequate services is the need, where practical, to make maximum use of existing resources within the community. What needs to be done can frequently be accomplished through already existing administrative units of government. Separate services - separate facilities - should be provided only for those individuals whose needs preclude services from already existing programs, public and private, for the non-handicapped individual. It must be recognized that community attitudes largely determine the degree to which the retarded - individually and as a group - are permitted to utilize these resources.

Because of the pressures of contemporary life and the intense efforts to capture the individual's interest, an individual seems to concentrate only on those social issues in which he has some kind of stake or is in some way personally involved. Where he senses that some other agency - such as government - gives support, he tends to turn his attention to other issues. We can no longer depend merely on publicizing a need and attracting attention via the mass media to gain the co-operation and support of the average citizen.

A Final Note

How, then, can we marshal the multiplicity of forces so necessary to resolve the problems growing out of, and associated with, this complex phenomenon we have so simply labeled "mental retardation"?

The present accumulation of knowledge relating to mental retardation is insufficient to immediately initiate effective programs of prevention, methods of treatment, and services to minimize the effects of mental retardation. Obviously this can only be accomplished through greatly expanded research efforts.

Yet the acquisition of new knowledge through research is insufficient unless there is widespread dissemination and utilization of research findings and information. The importance of immediate and accurate reporting of research, as well as the ease of retrieval, has long been recognized.

The communication of research findings and information from one professional discipline to another is basic to the resolution of the present problems confronting the scientist when he attempts to explore evan a single aspect of the complex condition of mental retardation. Improvement in communication between the professional disciplines warrants consideration by the scientific community. This text is one attempt to foster inter-disciplinary communication and collaborative research.

References

Heber, R. (ed.). 1958. A manual on terminology and classification in mental retardation. Monogr. Suppl., Amer. J. Ment. Defic., 64, No. 2.

The President's Panel on Mental Retardation. October, 1962. Report to the President: A Proposed Program for National Action to Combat Mental Retardation. Washington, D.C.: U.S. Government Printing Office.

The Secretary's Committee on Mental Retardation. February, 1962. Mental Retardation Program of the U.S. Department of Health, Education, and Welfare (Fiscal Year 1964). Washington,D.C.: U.S. Department of Health, Education and Welfare.

U.S. Department of Health, Education, and Welfare, May, 1962. Mental Retardation. Activities of the U. S. Department of Health, Education, and Welfare. Washington, D.C.: U.S. Government Printing Office.

U.S. President's Commission on National Goals. 1960. Goals for Americans. Report of the President's Commission on National Goals. Prentice-Hall.

The following essay considers the communities expectations of the mentally retarded and is a reinforcer of Steven's position on community responsibility in the previous essay. Dr. Reichard reiterates that the community must be made aware of the positive aspects of the condition and the individuals. Like educators, the general public tends to look only at the negative aspects of mental retardation.

COMMUNITY EXPECTATIONS OF THE MENTALLY RETARDED

Cary L. Reichard, Ed.D.[1]

Adequate vocational adjustment for the retarded is in part determined by a community's acceptance of them as potential contributors to society. Attitudes reflecting "what pupils cannot do" could be detrimental in terms of job acquisition and success. Therefore, it would be to the advantage of the retarded if communities were made aware of the things the retarded "can do" as well as their limitations.

Preconceived expectations on the part of teachers, whether positive or negative, have been found to directly affect a student's achievement (Rosenthal, 1966). If this information is correct, we can assume that the expecations of an employer in regard to a potential employee, would to some extent affect job success or failure. Therefore the efforts of a good teacher, with effective teaching methods and a sound curriculum based on community adjustment, might well break down due to a community's inappropriate expectations of the retarded. The point is clear. Special educators cannot afford the costs of programming for the retarded when the outcome may still result in social failure.

---

[1] Cary L. Reichard is a member of the faculty of the Department of Special Education, School of Education, University of Florida.

If negative attitudes toward the retarded exist in communities - and research generally supports this assumption - measures must be taken to alleviate these attitudes.

There is reason to believe that we as special educators are unconsciously responsible for some of the negative attitudes existing in the community. One hundred master-level students majoring in special education were asked to list three educational characteristics of the retarded, (Reichard, 1969). The following represents the characteristics most frequently listed:

(1) Low intelligence
(2) Minimal academic achievement
(3) Behavior disorders
(4) Lack of motivation
(5) Short attention spans
(6) Difficulty with abstract concepts
(7) Sequencing problems
(8) Perseveration

A decision as to whether or not this list of characteristics is completely, or only partly, descriptive of the mentally retarded is of little importance in this paper. What is important is that all but fifteen of the three hundred responses had negative overtones, citing inabilities rather than abilities. It is important to know a child's limitations, but it is of equal importance to understand and report the things he can do. For example, it is believed that approximately 50% of the cerebral palsied fall within the intelligence range of mental retardation.

However, this same statement having negative overtones could well be said positively by stating that approximately 50 of the cerebral palsied fell within the range of normalcy.

Determining and recording a pupil's limitations is an integral part of program planning for the retarded child. But the community must be made aware of the positive aspects of the retarded. (1) They can become gainfully employed. (2) They can become self sufficient. (3) They can participate in community social functions. (4) They can learn to read, write, and perform arithmetic. (5) They can learn to effectively communicate and interact with their social peers. As special educators let us keep in mind and accentuate the positive aspects of the retarded. We can and must develop a respectful community image for the retarded.

References

Reichard, Cary L. "Professional Attitudes of the Retarded," (Unpublished), October, 1969.

Rosenthal, Robert, and Jacobson, L. "Teacher's Expectancies: Determinants of Pupils' I.Q. Gains." Psychological Reports, 1966, Vol. 19, 115-118.

As a group, the trainable mentally retarded are often ignored, not only in teacher training programs, by the general public, governmental agencies, and school systems, but also by those who attempt to apply learning theories to practices of educational procedures. While the following essay applies the theory of Piaget to building curriculum for the trainable mentally retarded, see if you can identify those areas where you could apply the theory to curriculum for the educable mentally retarded.

PIAGETIAN THEORY: IMPLICATIONS FOR BUILDING CURRICULUM FOR THE T.M.R.

by Lillian Whyte

Traditionally educators and psychologists have considered intellectual development in terms of I.Q. and or mental age. This view of intelligence has not proved of any great worth since the concepts are nebulous and often misleading. When used to describe the Trainable Mentally Retarded (T.M.R.) they have been even less valuable. To describe a child as having a mental age of five years when he is chronologically much older, does not provide either an accurate picture of the child or sufficient information for programming. He is not like a five-year-old and to view him as such tends to portray him in negative terms.

An alternative to I.Q. and Mental Age descriptions has been proposed by Inhelder (1968). Using Piagetian theory as a point of departure Inhelder views the Trainable Mentally Retarded as individuals who as adults, will progress to the stage of preoperational thinking. According to Piaget, intellectual development can be divided into four periods:

1. Sensorimotor period (usually lasting from birth to 2 years)
2. Preoperational period (usually lasting from 2 to 7 or 8 years)
3. Concrete operations (from 7 or 8 to 11 or 12)
4. Formal operations (the adolescent period).

Each stage is characterized by the development of specific abilities and by particular ways of handling the environment. The sensorimotor child operates entirely on a motor level; the preoperational child at a perceptual level. At the operational level the child is not tied to motor or perceptual knowledge but can reason in abstract terms. However, at the concrete level he must use objects as a point of departure; that is, he reasons with objects. It is not until the formal level that the child can reason from verbal statements.

Applying this developmental hierarchy, the Trainable Mental Retardate is one who follows the normal pattern and sequence of development but at a slower pace and who fixates at the preoperational period; i.e. his learning is characterized during the early years as motor level learning and during adolescence and adulthood as perceptual level learning. Using this description the tendency is to become more positive in the approach to the T.M.R. We consider what he is, rather than what he is not. We describe him in specific terms and the description enables us to plan programs and materials for him.

A Description of the Developmental Periods
and
Their Relation to the Development of the T.M.R.

1. The Sensorimotor Period:

Normally the child reaches the end of this period of development between two or three years of age. The T.M.R. reaches the end of this period of development at approximately eight to eleven years (Woodward 1962, Whyte, 1969). The sensorimotor period of development is divided into six stages.

Stage 1: The reflex stage: The infant is born with a number of abilities such as sucking, grasping, etc. Gradually during the first stage (which normally lasts one month) the child begins to recognize when to suck and to grasp. In other words, what started as an automatic reflex, begins to come under the child's control.

Stage 2: The stage of primary circular reactions: During this stage the child acquires a number of habits. He becomes curious. He coordiantes various schemas; e.g., he turns his head to see where a sound has come from; he can follow a moving object (such as his hand with his eyes).

Stage 3: The stage of secondary circular reactions: In stage 3 he begins to crawl and to manipulate objects. His scope of interest extends beyond himself to his environment. He learns that his actions are related to external events; e.g., he can make the object repeat an interesting sound. He is interested in making it happen again because he likes repetition, and so he repeats the action again and again. His ability to classify and his understanding of relations among objects begins in this stage.

Stage 4: The stage of coordination of secondary schemas: The abilities begun in stage 3 become more complex and sophisticated. He begins to anticipate happenings (he cries when his mother puts on her hat); he begins to imitate sound and actions; he begins to realize that objects still exist when he can no longer see them.

The normal child completes these four stages of sensorimotor development in the first year of life. The chronological age (C.A.) at which the T.M.R. reaches this stage of development is approximately three years (Woodward 1962).

The way in which a child can manipulate material and the kind of material he can manipulate is closely related to his stage of development. The stage 4 child can handle material of a type where he repeatedly puts small objects in and out of hollow, larger containers. While he is doing this he is learning about spatial relations; therefore, this type of play is very important. Some of the activities they enjoy at this stage are spinning toys, and water and vessels for pouring.

Once again, it should be said that these findings have significance for the teacher of the T.M.R. Child. They indicate that the teacher must be aware of the stage of development which the children have reached in order to provide materials they can and need to handle to ensure future development. Many T.M.R. children may still be in stage 4 when they enter school for the first time (at age five or six). Most are at stage 5. Stage 4 and stage 6 in T.M.R. children lasts roughly from C.A. six to C.A. eleven.

Stage 5: The stage of tertiary circular reactions: During this stage the child begins to invent means of doing things. He does this by active trial-and-error; e.g., he experiments with objects such as sticks to push or pull other objects within reach. It is a period of extensive experimentation. Children now become intensely interested in making objects (such as blocks) fit into containers (such as wagons). Examples of useful materials are posting boxes where the child can fit shapes into appropriately shaped slits.

Towards the end of this stage children begin to tackle problems such as fitting "nesting" toys together; they begin to tackle formboard tasks such as simple puzzles. They begin to understand verbal directions given in simple concrete situations.

Stage 6: Beginning of thought: During this stage he makes the transition to symbolic thought. He attempts to think about a problem. He can imitate a model even though the model is not present. He gives evidence of verbal comprehension. He begins to be successful with items on tests like the Standore Binet. He can handle more elaborate picture puzzles. He can be introduced to material that requires him to copy sequences, e.g. colored beads on a string.

These six stages constitute the period of development referred to as sensorimotor development. During the sensorimotor period a number of abilities develop. Several of the more important abilities to develop during this period are:

1. From accepting stimuli passively, he develops to the point of acting intentionally; e.g. he squeezes a bulb to blow a horn and he puts nesting boxes together so they fit.

2. Objects begin to take on meaning. During the first part of this period objects have only "motor meaning", that is, he must explore motorically. Later the child learns symbolic meaning; he begins to "think" about objects not physically present.

3. He learns objects permanence; that is, he gradually acquires the knowledge that objects are still there even when he can no longer see them. He learns to remember.

4. He begins to understand causality, or what causes action to occur; e.g. he blows the horn because he wishes repetition of that particular sound.

5. His spatial system begins to develop; he learns relations like in front of, in relation to his own body. The concept of time is closely related to the concept of space. A concept of time allows the child to repeat actions in a simple temporal sequence.

6. He learns how to imitate and to play. During this stage speech appears, at first nonmeaningful (simple repetition) and later meaningful (the word ball represents the object ball).

A summary of the characteristics of each stage of sensorimotor development is found in Table 1.

Most T.M.R. children reach the end of the sensorimotor period of development at approximately eight to eleven years of age, although for some it may be as late as fourteen years. Before this time it is useless to attempt to teach him "academic" subject matter. His training during this period should concentrate on developing basic mental abilities. This can be done by providing him with the materials he can manipulate in situation which are likely to lead him on to the next stage of development.

It should be noted that while the child's intellectual development is like that of a normal two-to three-year-old, he is apt to be much further advanced in his locomotor and social development. This aspect of development will be closer to his chronological age level and this may lead people to expect more of him intellectually than he can deliver. However, while the intellectual and "academic" tasks he can handle may be limited (and we should not thrust tasks upon him which he cannot handle), if he can perform at a more advanced level in motor and social development, we should expect him to do so. If we do not challenge him, we will over-protect and thus retard him further in innecessary ways.

11. Preoperational Period:

When the child has completed the sensorimotor period of development, he enters the preoperational period. There are two stages in this period of development: Stage 1 is the stage of the preconcept and Stage 2 the intuitive stage. The T.M.R. adult will usually attain the second of these two stages, thus fixating as an adult at the preoperational period of development.

During the peroperational period the child's thought is dominated by his perceptions. These cause certain distortions to appear in his thought; e.g. he does not realize that the amount of liquid in a container remains the same of the shape of the container is changed; 6 + 1 will not represent the same amount as 4 + 3 because the longer or shorter line makes it look like more or less than the other.

TABLE I

A STAGE BY STAGE DESCRIPTION OF THE ABILITIES DEVELOPED DURING THE SENSORIMOTOR PERIOD

Stage	Approx. Mental Age	Approx. C.A. Range	ABILITIES DEVELOPED DURING THE SENSORIMOTOR PERIOD						
			Intention	Meaning	Object Permanence	Space	Time	Causality	Imitation & Play
1. (reflex stage)	Birth to 1 month	First three years to 5 or 6 years of life	Basically a reflex stage, where the child initiates the beginning of control						
2. (primary circular reactions)	1 to 4 months			he makes different responses to different objects					pseudo-imitation begins
3. (secondary circulary reactions)	4 to 8 months		acts upon objects e.g. shakes doll	"motor recognition" e.g. tries to grasp an object	brief search for vanished object one sense/ e.g. eyes	all senses focus on single object	brief search for absent object	acts then waits for effect to occur	pseudo-imitation
4. (coordination of secondary schemata)	8 to 12 months		attacks a barrier to reach a goal e.g. pushes pillow out of way to reach doll	symbolic meaning e.g. opens mouth when spoon approaches	prolonged search using more than one sense, e.g. listens, looks for object	rotates object to put right side up	prolonged search for absent object	attacks barrier to reach goal waits for adult to serve him	true imitation of a response means often become ends
5. (tertiary circular reactions)	12 to 18 months	6 to 11 years	experiments in order to "see" discovers by groping for solutions	symbols become more and more complex during stages five and six and speech and language appear	can follow a sequence of actions if object remains in sight	can follow a sequence of actions if object remains in sight	can follow a sequence of actions if object remains in sight	discover new means; seeks help from adults	true imitation becomes more complete and precise
6. (beginning of thought	18 to 24 months	8 to 14 years	can solve new but similar problems without groping		can follow a sequence of events even if object is hidden	can solve problems by making detours	can anticipate and remember events	infers cause from observing objects	can imitate absent objects

In the beginning it is useless to teach by criterion of similarity (e.g. putting all the blues in one group and all the reds in another), because he groups or classifies objects in a figural or graphic arrangement or collection; e.g. he may make short or long lines with the objects comparing the first with the second, and the second with the third, etc., often changing the criterion of similarity. Towards the end of this period he will collect objects into groups, using one criterion, but he is still unable to classify. This inability can be verified by asking him to compare a sub-class with a higher class; for example, when asked if a group of 19 roses and 3 daffodils contains more roses or more flowers the usual response will be, more roses because there are only 3 daffodils.

What preoperational thinking means is that the child is unable to classify or understand numbers in any true sense. The ability to think is therefore limited to the concrete.

During the preoperational period two important systems begin to develop, a number system and a classification system. Both systems are completed during the concrete operational period. Because the T.M.R. does not become operational, he does not complete the development of these two systems. However, even preoperational thought allows him to initiate development in these two areas and with the beginning of these abilities he can achieve worthwhile accomplishments.

The preoperational period is divided into two stages, the stage of the preconcept and the intuitive stage. A description of the two systems, number and classification, is included under these two headings.

1. The preconcept stage: During this stage when a child is asked to put things together that are alike (i.e. to classify) he collects objects in a figural or graphic arrangement. He may make short or long lines with the objects comparing the first with the second, the second with the third, etc. As he makes these rather unrelated comparisons, he often changes the criterion of similarity. Thus he shifts from one criterion (e.g. color) to another (e.g. shape). Or, he may make a more complex object with the elements; e.g. a house. He cannot visualize classes in which all the elements are alike in some way. His understanding of number is also very limited. He cannot count because he is unable to make a one-to-one correspondence between two sets of objects. He is also unable to reproduce a row of objects in correct sequence. Therefore sequences of letters and words will have little meaning for him. Activities which encourage children to bring objects together by size or form are useful during this period. The T.M.R. enters this stage sometime after age eleven and remains at this level until approximately fourteen or fifteen years of age.

2. The intuitive stage: During this stage children learn to bring objects together in one-to-one correspondence, and eventually to make a number correspond with one object. He can therefore learn to count accurately. However, he cannot accept the invariance of numbers and when the configuration of a row of objects changes, so does his judgement. He cannot understand the principles of the elementary calculations of addition, subtraction, etc., although he may learn to group objects together on the basis of one criterion but the relationships of class and subclass are beyond him. Useful activities at this stage include copying a sequence of items in the same order, matching or pairing sets of objects in one-to-one correspondence, placing in order elements that are graded in length, breaking up a number of elements in different ways and reassembling them as a whole, dividing up a whole into equal parts, or making unequal

groups equal (Woodward, 1962).

Assessing Stage of Development

It is extremely important for teachers to realize the child's stage of development as he grows older, because the stage will determine what he will be able to do and also the type of materials and experiences the teacher should provide. In the absence of the background to test formally for the stage of development, it is necessary to discuss other ways of determining the child's level of development.

In the sensorimotor period the simplest way is to be aware of the characteristics of each stage and to observe the child's behavior. If his behavior is similar to that described, then he is probably at that particular stage.

The approximate age ranges suggested for each stage can also be used as a guide. However these age ranges were established from studying institutionalized children. It is possible that non-institutionalized children may be further advanced. The teacher can also present the child with the material he should be able to handle at that stage and to observe how he handles the material. This is one way of confirming her original opinion. If the teacher is interested in more formal testing, sensorimotor tests can be administered. Uzgiris and Hunt (1966) have assembled six series of tasks designed to assess, (1) visual pursuit and permanence of objects, (2) development of means for achieving desired environmental events, (3) development of schemas in relation to objects, (4) the development of causality, (5) the construction of the object in space and, (6) development of imitation.

Accurate and specific directions are given for assessing stage of classification ability in an article by Lovell (1962), and for assessing stage of development in Understanding basic number concepts in an article by Nichols (1963). This writer has constructed test schedules from all these sources and used them for determining levels at which to begin teaching retarded children. They have proved very successful.

Ways in Which the Classroom Teacher Can Expand Our Knowledge in Teaching T.M.R. Children

It would appear that diagnostic teaching holds great promise as a teaching strategy for the exceptional child. This is no less true for T.M.R. children. Because psychoeducational assessment instruments for this group are practically nonexistant, this writer has used a Piagetian model. At this point in time, it appears to have great potential.

The Piagetian model will become even more useful if teachers begin to use it in classrooms. The number of teaching programs for children who are developmentally young is increasing. If teachers will assess their children and observe which materials T.M.R. children at different stages can use, as well as the way in which they are used, our knowledge in this area will increase rapidly. It is particularly necessary to determine the sensorimotor stage and the areas of sensorimotor development which appears relevant for matching with the various programs. For example, is imitation the area of development most relevant for achievement in language; is space the area most relevant for early development of number? If teachers will apply this (or other developmental models) in their classrooms, we may be able to expand greatly our knowledge of teaching strategies for the T.M.R.

BIBLIOGRAPHY

Inhelder, B. *The Diagnosis of Reasoning in the Mentally Retarded.* New York: The John Day Co., 1968.

Lovell, K. et al. "An Experimental Study of the Growth of Some Logical Structures," *British Journal Psychology* (1962), 53:2: 175-88.

Nichols, R.H., "Programming Piaget in Practice," *Teaching Arithmetic* (1963) 1:3: 24-38.

Uzgiris, I.C. & Hunt, J. McV., *An Instrument for Assessing Infant Psychological Development.* University of Illinois: Psychological Development Laboratory, 1966, Mimeograph.

Whyte, L.A. *The Development of Classification Ability in Children of Below Average Intellectual Ability.* Unpublished PhD. dissertation, Teachers College, Columbia University, 1969.

Woodward, M., "The Application of Piaget's Theory to the Training of the Subnormal," *Journal of Mental Subnormality* (1962), 8: 17-25.

Dr. Lillian Whyte is an associate professor in the Department of Educational Psychology at the University of Alberta in Edmonton. She is also a member of the Canadian Committee of C.E.C.

The culmination of the activities and experiences of any special education program, especially those for the educable mentally retarded, is to habilitate each individual student to such a degree that he/she is able to assume a productive role in his/her community.

To be able to reach this objective it is necessary that the school systems provide the student with the experiences he/she can obtain through a well developed and structured work-study program. The work-study program is developed around the idea that the student will attend school part of the day where he will study the academic subjects as they relate to everyday life, and during another part of the day he will be released from school to work. The student is either placed on the job by the coordinator (teacher) or secures a job for himself. The latter is best. In actuality, like everyone else, the student is getting ready for the everyday world of work while working. The difference is that his experiences are more structured and controlled. One of the more impressive programs is described by Winston Ruby in his essay below. Following Mr. Ruby's essay is a job readiness evaluation form developed by John Kidd. Select a senior high school level child and evaluate him according to the form and see if you estimate that he is ready for the working world. Preferably, the child will be one who is educable mentally retarded.

THE WORK-STUDY PROGRAM

Winston Ruby

The concept of a Work-Study Program may be best understood perhaps if we begin by examining the type of student for whom it is intended.

Few would deny that the schools as they are presently constituted have a narrow and restrictive curriculum which caters to the average, a curriculum which is book-oriented and academic.

The school has often been compared to a factory into which we feed the Kindergarten students, run them through the mill and after eleven years have the finished product emerge - one educated human being ready to face the complexities of the world and become a contributing member of society. But what of the students who do not fit the machinery? Are these to be ground up and cast aside because they do not fit the mechanisms we have set up? Such waste. What of the slow learner, the student who is not university bound or even academically inclined, the student who cannot compete in the book-oriented atmosphere of the present system and who is unable to see the value of such an education becomes frustrated and

---

Mr. Winston Ruby is the 1970-71 Hilroy Fellow for Newfoundland. He was awarded his fellowship for his work study programme which he initiated at Morris Academy.

drops out in grade seven or eight?

Since the school is the only institution through which everyone in our society has to pass, an institution from which our society draws its useful and contributing members, the school cannot continue to be a Bed of Procrustes which cuts the person at both ends to make him fit. The bed, the machinery must be changed to handle students who do not fit into the regular academic programme. For an institution charged with the responsibility of preparing the entire population for a useful existence in society every drop-out, every student who enters the society unprepared is a failure for that institution.

Work-Study programmes like opportunity classes and pre-vocational or occupational preparatory courses are established in order to provide an efficient and effective learning environment for students who are unable to profit from the educational programmes of regular classrooms. The environment for growth provided by special classes should be so broad and flexible that the exceptional child has a far greater opportunity to discover and develop his abilities to the greatest degree.

The objectives of these classes which should be related to the students' present and future needs may be considered to be the development of:

1. Skills in the basic academic subjects that will prove useful and beneficial in present and future living.

2. General skills for future occupational competence.

3. Adequate habits of health and hygiene.

4. Emotional security and independence.

5. Useful leisure time activities.

6. The ability to become well adjusted and contributing members of a family and community.[1]

The Work-study programme is normally a three-year pre-vocational or occupational preparatory course operating at the high school level. However, the initial thrust for preparing the student for gainful employment should not occur at age 15 or 16 when he enters the Work-study programme. The subtle flavour of occupational skill development should permeate the child's entire special class experience.

At the primary level emphasis should be on reading, arithmetic, perceptual-motor development and personal development. At the intermediate level more emphasis is placed on occupational instruction. At this level students should be exposed to a more realistic occupational environment characteristic of industrial arts and home economics rooms.

The high school programme is a sharp contrast to the emphasis on the primary programme. While time is devoted in the Work-study programme remediating weaknesses in the basic skills, the emphasis is on practical occupational considerations which include specific manipulative tasks which may be required in various occupations and the personal and social development needed for successful interaction on the job and in the community.

Two of Mr. Ruby's students—Nancy White, and Jane Noseworthy—hooking rugs.

Students Rich Parsons and Gordon Hunt at work on lino cuts. Designs are cut in linoleum, inked with a roller and printed.

A cluttered corner of the workshop with a view into Mr. Ruby's classroom through the open door.

Puppets constructed by the work-study group students. These puppets are used by the students to develop language skills.

Approximately 50% of the students' time is spent in the occupational environment of the school work shop or in carrying out assigned tasks within the school. These school job training tasks may include such assignments as assisting the janitor, delivering attendance slips from homerooms to the office, stamping and sealing envelopes or assisting in the canteen or cafeteria. Reports are made on these students by the school job employers.

Work Experience

At this point the students may begin job exploratory visits and part-time work. Work experience consists of the student leaving the classroom for certain periods of time to first observe a certain job situation and then become involved in the work itself. Wherever possible the work experience is an extention of school occupational studies.

For students who are as yet unaware of what area or areas in which they could best earn their living, work experience will be to a large extent exploratory. Such experience will enlarge their knowledge of the job opportunities in the community as well as helping them gain insights into the skills needed in various occupations. It may well be that their vocational choice will be made as a result of the experience gained.

Experience has indicated that the students' problems of social adjustment may become more complicated when he reaches the age when he must leave the somewhat protective discipline of the school and make the transition to the world of work. The opportunity to participate in work experience will help to develop the attitudes, skills, habits and understandings needed to obtain and hold a job.

This type of programme also serves as an incentive for youth to stay in school and motivates them to take a greater interest in their academic studies.

More specifically, the work experience programme provides an opportunity for the student to have first hand experience in:

1. Developing knowledge of various job opportunities in the community.

2. Developing knowledge of the skills necessary for certain jobs.

3. Developing an understanding of the relationship between academic knowledge and work.

4. Appreciating the fact that promptness and dependability are essential in holding a job.

5. Developing ease in dealing courteously with employer and employees.

6. Assuming responsibility for taking orders and following directions.

7. Broadening his concepts of the work world and its conditions.

8. Developing a sense of security by discovering that he can be a contributing member of the community.

9. Developing an understanding of his own interest in and potential for various jobs.[2]

On-the-Job Training

After having had work experience in perhaps a dozen areas the student should now be aware of several general areas in which his interest is high, aptitude is apparent, and in which employment opportunities are available. It is in one of these areas that on-the-job training should take place.

Work experience has already exposed the student to numerous work situations which have informed him of the skills, attitudes, and background needed for various occupations. In addition he has learned a variety of skills, which, it is hoped, will be transferrable to other situations.

On-the-job training is distinguished from work experience by the depth to which a particular occupation is studied. The on-the-job-training will concentrate on one main area but should not be narrowly exclusive. If it is decided that on-the-job training will take place in a particular industry then care should be taken to ensure that some understanding of the over-all industry is gained before the training becomes specific.

If a student is to do his on-the-job training in a particular industry, it may be desirable to have him spend time observing in several areas of the industry. Care must be taken, however, to avoid placing the student in situations from which he derives little benefit. It may be helpful to have him try a number of tasks but this is by no means essential. It may often be more desirable to have the student concentrate on one specific task and allow him to master it than to attempt to give him insight into the industry as a whole.

Time Allotment

As has been stated above, approximately 50% of the student's time is devoted to occupational training in the school or in industry while the other 50% of his time is spent remediating weaknesses in his academic programme.

Some administrative patterns for occupational training which might prove feasible are as follows:

1. Two half days of occupational training in the school. Two half days of occupational training in industry.
2. Two half days of occupational training in the school. Three half days of occupational training in industry.
3. Four or five half days of occupational training in the school.
4. Four or five half days of occupational training in industry.
5. A block of several weeks or months in school and then a block of several weeks or months in industry.[3]

Throughout the entire work experience and on-the-job training programmes the student's progress is continually assessed and reported upon by the class teacher, counsellor, school job coordinator, if one is available, and the employer. These reports are evaluated and time may be spent in school remediating the student's weaknesses or inappropriate behaviour. For example, a student who is participating in on the job training with a trucking company may be found lacking in his ability to handle the business forms involved such as bills, invoices or receipts. These items would then be incorporated as a unit in his mathematics at school.

A typical report form is inserted at the end of this report.

Of course, all information about students taking part in work experience and on-the-job training would not be gained through formal reports. Much could be gained by informal chats with employers or through observation of the student in industry by the school job coordinator.

The Work-Study Programme at Morris Academy is receiving the willing, even enthusiastic support of local industry. In fact, so far we have had one hundred per cent co-operation. Some businesses expressed a preference for training their own personnel and stressed the importance of dependability and willingness to work and willingness to learn on the part of the student. An industry, in reply to one of our form letters requesting cooperation in the Programme, made this interesting comment:

"... we here at Newfoundland Steel (1968) Company Limited fully realize the importance of finding the right person for the right position.

The aptitude of the applicant for the available position, together with his or her mental attitude toward work, are considerations which cannot be over-emphasized.

Each year industry pays an enormous and detrimental price for its misfits, and now, in the face of government legislated increased employee benefits, it has become even more vital, if that is possible, to be able to select the ideal man for the job."[5]

Evidently, for certain jobs, some of the industries contacted would prefer to hire and train a person who showed promise of fitting smoothly into the organization and becoming a steady and reliable worker rather than hire a graduate of a trade school who might become a "misfit".

Of course, during the work experience and the on-the-job training programmes these industries will have ample time to assess the students for themselves in this regard. This is very encouraging for we feel that most of our students, if given the chance, could become the interested and reliable workers these industries seek. At the same time, we will be placing students into the work areas of their choice, many of which areas show good prospects for advancement. Not only will the industries gain good and dependable workers, the students should become happy and contributing members of society.

May we express our appreciation to these co-operating industries, and others who will have joined them by the time this article is published: Benson Builders, Holiday Inn, Newfoundland Hardwoods Limited, Newfoundland Steel Co. Ltd., Palmers Limited, Purity Factories Limited, Riteman's Limited, West End Trucking, Crown Service Company and Bay Road T.V. Sales and Service.

This article has necessarily been somewhat cursive and superficial. To conserve space discussion of many details has been omitted including dealing with unions, insurance, workmen's compensation as well as the limitations and numerous problems one encounters in implementing such a programme. A description of the physical plant at Morris Academy plus a discussion of our broad and extensive academic programme with the special methods and equipment involved is really the topic for a separate article. The photographs and captions included with this article may enlighten the reader somewhat in this respect.

1 The Opportunity Class, Ontario
Department of Education, p.2.

2 Curriculum Guide, Occupation Skills Division, Manitoba Department of Youth and Education, page 97.

3. Curriculum Guide, Manitoba, p.97.

4. Curriculum Guide, Manitoba, p.101.

5. Letter, November 19, 1970.

TEACHER OR EMPLOYER EVALUATION OF WORK EXPERIENCE

Student's Name ____________ Date Completed __________________

Evaluator _________________

Work Experience in
(type of job) _________ at __________ (name of industry)

ITEM	SUPERIOR	SATISFACTORY	UNSATISFACTORY
Ability to follow simple directions:			
Ability to follow a series of directions:			
Ability to follow established rules:			
Ability to accept criticisms and corrections:			
Ability to improve from criticisms and corrections:			
Ability to accept changes (flexibility):			

ITEM	SUPERIOR	SATISFACTORY	UNSATISFACTORY
Ability to get along with co-workers:			
Willingness to seek help when it is needed:			
Sense of responsibility:			
Sense of initiative:			
Personal neatness:			
Obedience:			
Trustworthiness:			
Courteousness:			
Punctuality:			
General work habits:			
General work habits and application to work:			
Remarks:			

A JOB READINESS EVALUATION CHECK LIST

John W. Kidd

The check list presented here has certain desirable features which make it widely applicable: (a) it is not copyrighted and may be reproduced and used without permission; (b) it is short and concise; and (c) it is applicable to all types of handicaps.

This evaluation form incorporates, in a five point scale, the personal characteristics profile from Peterson and Jones, A Guide to Jobs for the Mentally Retarded. Additional characteristics of the successful job holder were incorporated from the experiences of job placement consultants of the Special School District of St. Louis County, Missouri.

It may be noted that this instrument asks for race. Although such recording has been discouraged in recent years, requests for reports of placement and programing from governmental and other agencies frequently ask for this information.

John W. Kidd, Assistant Superintendent, Mental Retardation, Special School District of St. Louis County, Missouri.

Job Readiness Evaluation Check List Date Completed ____________

Name ____________ ____________ ____________ Social Security No. ____________
(Last) (First) (Middle)

Birthdate ______ Sex ______ Race ______ Telephone No. ____________

Address ______ ______ ______ ______ ______
(Number) (Street) (City) (State) (Zip Code)

Parent(s) or Guardians (specify) ____________________

Form filled out by (teacher's name) ____________________

District ______________ School ____________________

Current status: Work Experience (if any) (including in school):

______________ ______________________________

______________ ______________________________

____

Please check in the spaces the statement best describing the individual as compared with the typical educable retardate of his age.

	Well Above Average	Above Average	Average	Below Average	Well Below Average
Cooperation					
Effort					
Cautious-Safety Conscious					
Accuracy and Consistency in Following Directions					
Dependability: Promptness					
Independence					
Awareness of time					
Emotional control: Concentration					
Perseverance					
Steady rate and adaptability					

New task; two or more tasks at once

Self Correction

Accepting Constructive Criticism

Relationship with Others:
Sociability

Teamwork

Challenged by competition

Physical Stamina

Verbalization-Self Expression

Personal Appearance-Grooming

Memory

Manual Dexterity

Choosing-Decision-making

Speech

* Describe:

Vision: Seems normal without glasses ......; with glasses......
Seems to have vision problem * without glasses.........;
with glasses ....

* Specify nature:

Job Readiness Evaluation Check List - Page 2

Motor Limitations:

			Normal	Mild Limitation	Severe Limitation
A. Upper Extremities	Hands	Right			
		Left			
	Arms	Right			
		Left			
B. Lower Extremities	Feet	Right			
		Left			
	Legs	Right			
		Left			
	Hips	Right			
		Left			

Other physical deviations:

Has he used public transportation alone? Yes..... No.....; if No,
do you think he is capable of doing so? Yes..... No.....
Can he: read? Yes... No.....; write his name? Yes.... No....;
write simple messages? Yes..... No.....; tell time? Yes.....
No.....; make change? Yes..... No.....; do simple counting?
Yes..... No.....; arrange alphabetically? Yes..... No.....;
arrange serially by number? Yes..... No.....; tie knots and bows?
Yes..... No.....;
use a telephone? Yes.... No....; use a ruler? Yes.... No....;
use a yardstick? Yes.... No....; use weighing scales? Yes....
No ...;
do simple sorting as by color or size? Yes.... No....;

do simple cleaning? Yes.... No....; read simple gauges and dials? Yes.... No....;

locate or identify things by number, color, etc.? Yes.... No....;

use simple hand carpentry tools? Yes.... No....;

use simple hand sewing equipment? Yes.... No....;

Does he adhere to acceptable standards of public behavior? Yes.... No....

Can he fill out an application blank properly? Yes.... No....

Achievement Test Scores: Date ....

Word Knowledge .... Reading ....

Spelling .... Arithmetic Problem Solving ....

Is his vocational goal(s) realistic? Yes.... No....*

*If No, why? ....

....

....

Please note any specific way in which the home is supporting or hindering the program:

....

....

CHAPTER VII

VISUAL IMPAIRMENT

by

Dr. G.H. Jeffery

Many a blind man can see. When discussing any type of visual impairment, the question is frequently one of degree of impairment rather than either the presence or absence of any vision. There often is a confusion between legal blindness and total blindness. The definition given for blindness by National Society for the Prevention of Blindness Fact Book (1966) is as follows:

> *...visual acuity for distance vision of 20/200 or less in the better eye, with best correction; or a visual acuity of more than 20/200 if the evident diameter of-field of vision subtends an angle no greater than 20 degrees. (P.10).*

Of the legally blind group it is interesting to note that about 82% are readers of print while only 12% are readers of braille (Jones, 1961). Visual impairment is defined by the above mentioned society as "a visual acuity greater than 20/200 but not greater than 20/70 in the better eye with correction (P.10).

In the United States, it is estimated that there are 1/500 who are partially sighted while about 1/3000 are legally blind. Given these figures, it would be estimated that approximately 0.1 percent of school children have visual handicaps which, even after correction, warrant some type of special educational

5

provision (Kirk, 1972). Given this estimate of prevelence, Hardy (1971) stated that approximately 158 children, between grades 1 and 7, having a visual problem, sufficient to merit special education, could be found in Newfoundland. Most Newfoundland children who are in need of special education are sent to the Halifax School for the Blind in Nova Scotia. The Canadian National Institute for the Blind in Newfoundland operates a travelling mobile clinic which assesses and often treats persons with suspected visual problems. It is through this service that many of the visually impaired children, particularly in the outlying regions, are directed to the Halifax School.

The school age child with a more severe visual impairment is usually relatively easily identified by the teacher. As the degree of impairment becomes less, the degree of difficulty in finding children with impairment sufficient to merit special attention, increases. This points out one of the first concerns for the educator, namely, the detection of the child with a visual problem in the classroom.

Generally speaking, the earlier a visual problem is detected, the better the chances to overcome the problem or to minimize its disabling effects. Kirk (1972) supplies a checklist of behaviours found among preschool and school children which suggest the presence of possible visual difficulty. These are:

1. Strabismus; nystagmus.

2. How the child uses his eyes: tilting his head, holding objects close to his eyes, squinting, displaying sensitivity to bright lights, and rolling his eyes.

3. Inattention to visual objects or visual tasks such as looking at pictures or reading.

4. Awkwardness in games requiring eye-hand coordination.

5. Avoidance of tasks that require close eye work.

6. Affinity to tasks that require distance vision.

7. Any complaints about inability to see.

8. Lack of normal curiosity in regard to visually appealing objects (p.295).

Additional behaviours and complaints to which the teacher should be sensitive include any unusual eye characteristics such as the presence of red-rims, crustedness, swelling or bloodshot appearance. The presence of sties, or complaints by the child of dizziness, headaches, nausea, a burning sensation, itching in the eyes, and double vision also often indicate eye problems and/or potential visual difficulties.

The early detection of eye and visual difficulties is only one of the areas of key concern to the educator and, of course, the parent. A second concern is the nature of the experience a child with a visual problem has, particularly while young. A child with a visual problem is not typically aware of the existence of *a world he cannot see. This world needs to be brought to his attention by a seeing person. Hence, the early detection of a visual problem is of great importance as it allows for early remediation.*

For any young child, particularly one with a visual problem, play is of utmost importance as it is the means whereby the child can learn about his world. A blind child typically needs help in learning how to play, or more specifically, that there are objects to play with. A blind child, when encouraged to explore and play with objects in the tactile world, can begin to amass the immense foundation of information on which his subsequent learning success will depend. The article by Tait which follows illustrates this concern.

A prime concern of the educator, after the child has entered school, is also related to the means by which information can be relayed quickly and efficiently to a visually impaired child. For the totally non-seeing person, braille is an important tool although alternative less cumbersome and more efficient techniques are constantly being sought. Talking books and various other forms of recorded messages are used for both the blind and visually impaired while various types of large print materials and magnifiers are being used for those persons with some useable degree of vision (see Scholl, 1967). It is interesting to note that many educators feel that with increasing school age the problems of teaching persons with visual problems become more concerns of materials and equipment, than of teaching techniques per se.

Educators need be concerned with more than just the academic success of any child. They must concern themselves with the education of the whole child, taking into account such factors as the child's peer relations and self-concept. This is particularly important when working with visually impaired children. The *visually impaired child may not be well accepted by his teachers (Murphy, 1960) and peers (Bateman, 1962). He may be withdrawn, shy, and have many self-concept and emotional problems. It is generally found, for example, that more emotional and psychological problems are found amongst handicapped persons including the visually impaired than amongst physically normal persons (Meyerson, 1971; Lawenfeld, 1971). The problems relating to the development of self-concept and social relations are found in the article by Davis which follows.*

The education of the visually impaired is discussed in several of the following articles: The paper by Brothers discusses the problems involved in learning through listening and how this is effected by speed of presentation, the listeners intelligence, and several other factors. The merits of special class, resource and itinerant plans for teaching are discussed by Stephens and Birch while the problem of the multiply handicapped, deaf-blind child is discussed by Stein and Green.

For a discussion of the nature of the learning which occurs when the person lacks the experience of the physical referent on which his learning is based, see the article by Dokecki (listed under suggested readings).

References:

Bateman, B. Sighted children's perception of blind children's abilities. Exceptional Children, 1962,29, 42-46.

Hardy, M. I., et al. Standards for Educators of Exceptional Children in Canada, 1971, National Institute on Mental Retardation, Toronto.

Jones, J. W. - See Below

Kirk, S. Educating Exceptional Children. 1972, Houghton Mifflin, Boston.

Lowenfeld, B. Psychological problems of children with impaired vision. In W. K. Cruickshank (Ed.) Psychology of Exceptional Children and Youth. 1971, Prentice-Hall, Englewood Cliffs, New Jersey. pp. 211-309

Meyerson, L. Somatopsychology of physical disability. In W. K. Cruickshank (Ed.) Psychology of Exceptional Children and Youth. 1971, Prentice-Hall, Englewood Cliffs, New Jersey. pp. 1-74

Murphy, 1960. Attitudes of educators toward the visually handicapped. The Sight-Saving Review, 1960. 30(3) 157-161.

National Society for the Prevention of Blindness. 1966. N.S.P.B. Fact Book: Estimated Statistics on Blindness and Visual Problems. New York. The Society.

Scholl, G.T. The education of children with visual impairments. In W.M. Cruickshank and G.O. Johnson (Ed.) Education of Exceptional Children and Youth. 1967, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 287-342.

Jones, J.W. Blind Children, Degree of Vision, Mode of Reading. 1961, Bulletin 24, Washington, D.C.: U.S. Office of Education.

SUGGESTED READINGS

Bateman, B. Sighted children's perception of blind children's abilities. Exceptional Children, 1962, 29, 42-46.

Bateman, B. and Wetherell, J.L. Some educational characteristics of partially seeing children. International Journal for the Education of the Blind, 1967, 17, 33-40.

Brodey, W.M. Normal developmental learning and the education of the child born blind. Gifted Child Quarterly, 1962, 6, 141-149.

Dokecki, P. R. Verbalism and the Blind, A cubical review of the concept and the literature, Exceptional Children 1965, 32, 525-530

Fonda, G. An evaluation of large type. New Outlook for the Blind, 1966, 60, 296-298.

Foulke, E., et al. The comprehension of rapid speech by the blind. Exceptional Children, 1962, 29, 131-141.

Froistad, W.M. The partially seeing are not blind. New Outlook for the Blind, 1966, 60, 239-242.

Greenberg, H. & Jordan, S. Differential effects of total blindness and partial sight on several personality traits. Exceptional Children, 1957, 24, 123-124.

Hart, Oema. The Blind Child Who Functions on a Retarded Level: The challenge for teacher preparation. New Outlook for the Blind, 1969, 63(10), 318-321.

Nolan, C.Y. On the Unreality of words to the blind. New Outlook for the Blind, 1960, 54, 100-102.

Nolan, C.Y. A 1966 reappraisal of the relationship between visual acuity and mode of reading for the blind. New Outlook for the Blind, 1967, 61, 255-261.

Mehr, E.B. & Mehr, H.M. Psychological factors in working with partially sighted persons. American Journal of the American Optometric Association, 1969, 40(8), 842-846.

Murphy, A.T. Attitudes of educators toward the visually handicapped, Sight-Saving Review, 1960, 30, 157-161.

Scholl, G.T. Teacher Preparation for Visually Handicapped Children. A look into the future. Special Education in Canada, 1967, 41(3), 19-26.

Steinzor, L. V. Visually handicapped children: Their attitude towards blindness. New Outlook for the Blind. 1966, 60, 307-311

Sweibelson, I. & Barg, C.F. Concept development of blind children. New Outlook for the Blind, 1967, 61, 218-222.

Thurrell, R.J. & D.G. Rice. Eye rubbing in blind children: application of a sensory deprivation model. Exceptional Children, 1970, 36(5), 325-330.

PLAY AND THE INTELLECTUAL DEVELOPMENT OF BLIND CHILDREN

by Perla Tait, Ph.D.

Dr. Tait is assistant professor, Department of Special Education, Temple University, Philadelphia.

Although the term "play" is a common word used daily, and numerous theories concerning play exist, the term itself still has not been defined satisfactorily to adequately cover all of its complex aspects. Johan Huizinga (1950), in his classic work on play and culture, states that "play is a function of the living, but is not susceptible of exact definition either logically, biologically, or aesthetically" (p. 7). Lowrey (1955) states that "play ... is not exactly the simplest word in our language. The definitions and synonyms take up two columns in Webster's Unabridged Dictionary" (p. 574). Again, while play is a significant form of behavior, "it is nevertheless a phenomenon which puzzles and confounds many who study it, as evidenced by a general inability to define it" (Sadler, 1966, p. 237). It has even been suggested by Berlyne (1968) that play is no longer a useful category in psychology and it might be well to give it up since it seems that ignorance is the main factor that holds it together. Slobin (1964), in his discussion of play in childhood, does not attempt to define the word but does not feel this to be detrimental to the discussion of the behavior. As he explains, "we are unable to define precisely most of the words we use in everyday speech, yet this in no way interferes with our ability to use them consistently" (p. 61).

Mason (1965) believes that "it is the peculiar quality of this behavior that it can usually be recognized and labeled as play" (p. 528). And Sutton-Smith (1967, p. 98) feels it is best to persist with a general category which most believe they are able to observe even if the definition is inadequate.

General Definition of Play

In view of the diversity involved in defining this word, "play" and its influence on the intellectual development of blind children will be considered for purposes of this presentation in its most general, all-encompassing meaning, including within its sphere the terms "exploratory behavior," "curiosity," and similar terms. The literature supports this broad use of the term "play". Sutton-Smith (1967) states that in current research "play has generally been identified with exploratory behavior" (p. 98). Burgers (1966) states that "terms such as 'curiosity,' 'diversive exploration,' 'disturbance by a lack of information,' 'attraction emanating from objects which offer more varied or more irregular stimulation,' 'epistemic curiosity,' and 'conceptual conflict' appear as consequences of a tendency toward play" (p. 1681). In addition, various studies investigating a variety of behaviors involving young children often resort to examining some type of play behavior. This can be seen, for example, in studies of social participation in which the free play activities of nursery children are examined (Parten, 1932, 1933), and in Rubenstein's study (1967) of maternal attentiveness and subsequent exploratory behavior in which exploratory behavior was measured by "presenting play opportunity" and the "availability of toys within reach" (p. 1093).

Several reports in the literature indicate that the play of blind children is limited. Anne-Marie Sandler (1963), discussing the development of blind children as observed at a nursery in England, states:

> On entering the Hampstead Blind Nursery (this has also been reported by observers at many other institutions for the blind) one is soon struck by the phenomenon which seems to be characteristic of most blind children as compared with sighted children of the same age. This phenomenon is the tendency of these children, no matter how much they are stimulated by their teachers, to lack any sort of real creative drive toward, or interest in, the progressive mastery of the outside world.... It appears that many of these children are abnormally content to be left alone, and to indulge in repetitive self-stimulating movements or stereotyped nonadaptive activities. Strenuous efforts on the part of the teacher may often elicit the cooperation of these children, and they may appear to enjoy such activities as group games, but this enjoyment is rather shallow, and the moment the teacher's efforts slacken, they appear to sink back into a state of lethargy (pp. 344-345).

Burlingham (1965) compares the pupil in a normal nursery school who is "invariably active and spontaneously occupied" (p. 196) with the children in the Nursery for the Blind who will sit, if not compelled otherwise, "motorically idle, on the floor, in a corner, often with their heads on the table" (p. 196). She refers again (1967) to this lack of the desire to play, which is found to be a problem for mothers and nursery school teachers, when she discusses the play activities of the blind child. "The children seem to lack any desire for the objects surrounding them and consequently show no sign of a wish to play" (p. 187).

Play Therapy

Rothschild (1960) practiced play therapy with blind children over a period of five years at the Service Bureau for Blind Children, a department of the Industrial Home for the Blind, Brooklyn, New York. He states (1960, p. 329) that while play is normally used as the basis for therapy with children because it is assumed to be the most spontaneous, natural, and unguarded medium of expression of children, he often found it necessary when dealing with blind children, to introduce the blind child to play first before play could be used as a therapeutic tool. "The blind child may not be accustomed to express and to involve himself in play. Play ... may be a far less frequently pursued endeavor and considerably less important in the blind child's life than in the life of the child with full vision" (p. 330).

Singer and Streiner (1966) investigated the imaginative content in the dreams and fantasy play of blind and sighted children. Interviews and spontaneous accounts of the play, fantasies, and dreams of blind and sighted children (aged eight to 12) were recorded and rated independently by judges for imaginativeness. The results indicated that sighted children proved more imaginative in all three areas, while the form and content of the stories, dreams, and play accounts of the blind children "suggest greater concreteness and lack of flexibility or associational variety" (p. 479). The blind children rarely used material that deviated from their day-to-day life experiences and the content did not differ from story to story, usually being restricted to one or two characters. Singer and Streiner conclude by recommending:

> To the extent that for the child a varied and rich fantasy life may be a valuable addition to the cognitive repertory and increased affective enjoyment, one might hope that special attention to the training of the blind to imaginative story-telling and practice of fantasy play would be desirable...If future research supports the evidence of this study on the imaginative limitation of the blind child, a more conscious effort at imaginative stimulation in the educational curriculum and in the pattern of parent-child relations may prove desirable (p. 481).

Cowen (1968) examined the sex-role typing of elementary blind students with the use of a questionnaire based on Rosenberg and Sutton-Smith's list of games preferences. She states (p. 41) "the visually handicapped children often responded more slowly to the questionnaire, asked more questions about the activities, and frequently said something like 'Oh, I've played that a few times, and I liked it.' Such remarks impressed the examiner that their world of play was certainly more limited than the results of this study revealed."

The Role of Play in Intellectual Development

The most generally recognized function of spontaneous play has been in aspects relating to the emotional growth of the child. Almy (1967) has suggested that in fact there is such a pervasive and persistent preoccupation with the emotional aspects of play that its intellectual connotations have been severely neglected. But the role of play in intellectual development is vital.

Isaacs (1933) has described imaginative and manipulative play as "the starting point which leads to the child's discovery, reasoning and thought" (p. 209). Imaginative play creates practical situations which may often be pursued for their own sake, and thus lead on to actual discovery, or to verbal judgment and reasoning...It builds a bridge by which the child can pass from the symbolic values of things to active inquiry into their real construction and real way of working...And in his make-believe play he takes the first steps towards that emancipation of meanings from the here and now of a concrete situation, which makes possible hypothesis and the "as if" consciousness (p. 209).

Sutton-Smith (1967) in a discussion of the role of play in cognitive development suggests the possibility that play produces a "super-abundance of cognitions as well as a readiness for the adoption of an 'as if' set, both of which are potentially available if called upon for adaptive or creative requirements" (p. 107). Piaget (1962) describes play as the "extreme pole of assimilation of reality to the ego while at the same time it has something of the creative imagination which will be the motor of all future thought and even of reason" (p. 162).

Thus, while play seems to be essential for intellectual development in the seeing child, can the blind be expected to attain satisfactory intellectual development with inadequate play patterns? There is evidence in the literature to indicate that blind children do experience difficulties in attaining satisfactory intellectual development because of certain such inadequacies.

Cognizance of Reality

The seeing child, in his spontaneous play, takes in reality in his own egocentric and affect-laden way. This is necessary because the child cannot immediately adapt to the system of logical thought that characterizes adult thinking (Almy, 1967). According to Piaget (1962) "this thought has not been constructed, and during development it is inadequate to supply the needs of daily life" (p. 166). The construction of logical thought depends not only on the child's activity with material things, but also on his social collaboration with other children. Interaction with his peers in the social give-and-take of spontaneous play confronts him with the necessity of accommodating himself to their ideas and since these ideas are not so strikingly different from his own, adaptation is more readily made to peer thought than to the thought of the older person (Almy, 1967).

Writers who have dealt with play behavior have recognized the importance of play in developing a sense of reality in children. Isaacs (1933) states that free dramatic play "furthers the development of the ego, and of the sense of reality. It helps to free the child from his personal schemes, and to enhance his readiness to understand the objective physical world for its own sake" (p. 210). According to Erikson (1950, p. 194) the child must discover what potential play content can be admitted only to fantasy or only to autocosmic play; what content can be successfully represented only in the microcosmic world of toys and things; and what content can be shared with others and forced upon them. As this is learned each sphere is endowed with its own sense of reality and mastery.

The Role of the Mother

Blind children are forced to obtain their knowledge of the reality of objects and situations through the senses other than vision. To the seeing, however, the sense of vision is the unifying agent which allows the individual to observe situations in an all-encompassing manner. The sense of sight also organizes discrete experiences and facilitates the reduction of form varieties to simpler patterns or schemata. The experiences of the blind child remain discrete and unorganized unless guided observation lends organization to them (Lowenfeld, 1963, p. 245). Wills (1965) has suggested that this is one role of the mother of the blind child. The child depends on his mother to help him to some kind of synthesis through experiences she provides.

Otherwise he will be flooded by a wide range of perceptions from his different senses; and, without the aid of vision, he will not know which to attend to and so will have difficulty in organizing them into concepts. This in turn will hold up secondary-process thinking (pp. 361-362).

The difficulty of the blind child in achieving an understanding of the external world has been noted by several writers (Cohen, 1966; Lowenfeld, 1963; Wills, 1965). Lowenfeld (1963) has stated that special opportunities for observation will help blind children "avoid falling into a pattern of unreality which so often interferes with their later adjustment to the requirements of life" (p. 246).

Gesell, Ilg, and Bullis (1949) have stated that "the psychological task of the blind infant is to...achieve an appreciation of realities other than his own ego" (p. 264). Deutsch (1940) investigated the sense of reality in persons born blind and found a striking readiness to give up reality and escape into fantasy.

Language and Abstract Functioning

An important step in the development of intelligence occurs when the child is able to withdraw from the actual objects of the real world and to deal with internally organized conceptual systems which represent reality. According to Piaget (1947) this occurs when the child is able to distinguish between *signifiers*, the internal representations, such as an image or word, that stand for some aspect of reality which may be present or absent, real or imagined, and the *significates*, which are the objects or constructs symbolized (cf. Robinson and Robinson, 1966). While the younger child (from birth to two years during the first sensorimotor period in the development of intelligence) can use a few rudimentary signifiers, he does not recognize them as such. The older or higher-level child is able to evoke internally an aspect of the world which is not perceptually present, and to recognize that this is what he is doing. Piaget further distinguishes two kinds of higher-level signifiers, the *symbol* and the *sign*. Symbols are the private, primarily nonverbal signifiers which the child cannot share. Signs are the largely verbal signifiers which have acquired a social meaning and allow the child to communicate with other persons. But the young child finds the system of ready-made collective signs inadequate, since they are inaccessible and hard to master, and therefore these verbal signs will remain unsuitable for a long time. Hence, the child will require "symbolic play or imaginative play, the purest form of egocentric and symbolic thought, the assimilation of reality to the subject's own interests and the expression of reality through the use of images fashioned by himself" (Piaget, 1947, p. 127).

The Articulation of Experience

Margaret Lowenfeld (1935) has pointed out that children are unable to articulate their experiences since their experiences have a different basis than those of adults. For example, for the young child the senses of smell, taste, and touch are much more important than those of hearing and vision. Therefore, the adult, who is dependent on hearing and vision, cannot imagine what the child is experiencing. This position is similar to that of Piaget when he discusses the need of children to assimilate experience at their own level. As noted previously, Piaget distinguishes between symbols which are the private, primarily nonverbal signifiers which the individual cannot share and signs which are largely verbal signifiers which have acquired a social meaning.

The means by which a child progresses from the private to the social signifier may very well be that of play experiences. Hartley, Frank, and Goldenson (1952) state that the value of play experiences may be that "they take an intermediate place between the inarticulate, subjective impressions and the structured language and prescribed conduct of adult social communication" (p. 18).

If we now turn to Burlingham's (1961) discussion of the development of language in the blind child, it becomes apparent that an emphasis is placed on verbalization before the necessary, previous nonverbal development occurs. According to Burlingham, it appears that blind children, after an initial delay, pick up speech quickly and by the time they reach nursery school age they speak fluently and have larger vocabularies than seeing children.

This is one of the spheres that mothers encourage. Speech provides a longed-for contact that the mothers have missed. They have

> lacked the response to their glance and to their facial expressions. Speech not only makes up for this but also reassures the mother that her child is not backward as well as blind... (p. 136)

Burlingham continues that while children normally imitate their mother's speech and this leads to no discrepancy between their concepts and their mother's because the visual impressions which are verbalized are shared by both, this does not occur with the blind child and mother. The mother of the blind child may, in many cases, continue to verbalize based on visual impressions which the blind child cannot share, rather than offering to the child words based on his own sounds, tactile perceptions, and body sensations. While in this way the words verbalized by the child are not connected to his own sensory experience and lack the emotional strength needed to incorporate these words into the child's vocabulary in an independent meaningful way, the words derive emotional meaning based on the mother's pleasure and praise for his achievement. "The blind child who learns the mother's language takes an easy way out; that is, he appears to acquire understanding while in reality he acquires only words" (p. 136).

Lowenfeld (1963, p. 248) refers to the difficulty of the blind child to acquire adequate word concepts. Cutsforth (1932) studied "verbal unreality," that is, learning to name things without having any real experience or idea of them, and found that blind children used visual concepts when other sensory concepts based on familiar experiences could have been used and would have been more meaningful. A later study by Nolan (1960) indicated that visually oriented verbalism was no longer the problem discussed by Cutsforth, due, possibly, as suggested by Lowenfeld (1963, p. 249), to modern methods of instruction brought about by Cutsforth's findings. However, Harley (1963) did find that verbalism caused by the lack of concreteness and first-hand experience continues to be an important problem. Harley states that "as a blind child becomes schooled in verbalism (words and concepts to which he can attach insufficient experiential relations) he may often accept verbal descriptions of others instead of gaining the necessary impressions from concrete experiences through his senses" (p. 9). The items used in the study were items easily accessible to all the children involved. They were so familiar that a six-year-old subject was able to define all of them, yet the oldest blind child of 14 could not accurately identify 24 of the 29 objects represented by the words. Harley states that "if intelligence consists partly of the ability to organize concrete materials in space and time so as to carry out definite aims, and if the ability to organize concrete materials depends to some extent on past experience with these materials, limited contact with the environment should have some effect upon measured intelligence of these blind children" (p. 26).

Ability to Abstract

Rubin (1964) investigated the ability of the congenitally blind to abstract as measured by a series of tests including parts of the WAIS, Proverb's Test, and the Kohn Test of Symbol Arrangement. He defined abstraction as "the ability to comprehend relationships and to react, not merely to concrete objects, but to concepts and abstract symbols, or to discern common elements in miscellaneous stimuli" (p. 23). He concluded that there was an indication of a deficiency in the ability of congenitally blind subjects to abstract.

As previously noted, Piaget (1962) described play as having "something of the creative imagination...(p. 162). Leiberman (1965) studied the relation between children's playfulness and their creativity. She found a significant relation between playfulness and ability on several creative tasks. Wallach and Kogan (1965) found that when creativity tests were given in a situation where the subjects were freed from usual test pressures and the tests were approached in a game-like manner, creativity scores differed from conventional test scores. They concluded that creativity is something different from conventional intelligence and that a playful attitude is necessary for the creative process.

The Response to Toys

Sutton-Smith (1967) presents the viewpoint that when a child plays with particular objects, varying his responses with them playfully, he increases the range of his associations for those particular objects. In addition, he discovers many more uses for those objects than he would otherwise. Some of these usages may be unique to himself and many will be "imaginative," "fantastic," "absurd," and perhaps "serendipitous." Presumably, almost anything in the child's repertoire of responses or cognitions can thus be combined with anything else for a novel result, though we would naturally expect recent and intense experiences to play a salient role. While it is probable that most of this associative and combinatorial activity is of no utility except as a self-expressive, self-rewarding exercise, it is also probable that this activity increases the child's repertoire of responses and cognitions so that if he is asked "creativity" questions involving similar objects and associations, he is more likely to be able to make a unique (that is creative) response.

> That is to say that play increases the child's repertoire of responses, an increase which has potential value (though no inevitable utility) for subsequent adaptive responses (pp. 101-102).

Sutton-Smith hypothesized that children would show a greater repertoire of responses for those toys with which they had played a great deal than for those toys with which they had played less; or more specifically, boys and girls would have a greater repertoire of responses with objects of their own sex than for opposite sex objects. This proved to be the case and since the number of responses were not related to intelligence, Sutton-Smith interpreted the results as an example of the way in which responses developed in play may be put to adaptive use when there is a demand. More generally speaking, an individual who is capable of a wider range of adaptive responses may be better equipped to face situations of crisis.

Anne-Marie Sandler (1963) states of blind children she has observed that "their activity does not appear to lead to the same creativity as in the sighted child. They show impoverishment of their inner life, which leads to the relative 'emptiness' of the blind, so often described in the literature" (p. 359). Singer and Streiner (1966) speak of the lack of that exploratory behavior in blind children which "provides the basis for novel associative combinations that become the food of fantasy" (p. 481). McAndrew (1962) found that blind children were more rigid and feared venturing into strange territory as exemplified by the statement. "I only know how to make what you taught me" (p. 376).

Spontaneous Play and the Educational Program

Play is a vital element in the intellectual development of the child. Without it, the process may be retarded, or distorted, in ways which may not appear related to play, but in reality are. Educators of blind children may need to foster spontaneous play activities before any meaningful academic learning behavior in the classroom or even a satisfactory life adjustment can be accomplished.

In education, play is acknowledged as taking a meaningful place in instruction. However, this play must usually serve some specifically useful purpose. Children play bingo to learn their numbers, ring-a-round the rosy to improve coordination, lotto, Simple Simon, and others, to teach something academically respectable. These exercises provide an opportunity for traditional learning with candy-like coating. However, these activities cannot be substituted for spontaneous play which establishes the foundations on which intellectual development is built. As blind children appear less likely to participate actively in spontaneous play, it is the responsibility of those working with blind children to assure that this aspect of their educational program is not neglected. The blind child must actually be taught to engage actively, creatively, and independently in spontaneous play activities if he is to attain maximum satisfactory intellectual development.

References

Almy, M. Spontaneous play: an avenue for intellectual development. Child Study, 1967, 22, 265-276.

Berlyne, D.F. Laughter, humor, and play. In G. Linzey and E. Aronson (eds.) The Handbook of Social Psychology. (2nd. Ed.) Vol. III., Reading, Mass.: Addison-Wesley, 1968.

Burgers, J.M. Curiosity and play: basic factors in the development of life. Science, 1966, 154, 1680-1681.

Burlingham, D. Some notes on the development of the blind. Psychoanalytic Study of the Child, 1961, 14, 121-143.

Burlingham, D. Developmental considerations in the occupations of the blind. Psychoanalytic Study of the Child, 1967, 22, 187-198.

Cohen, J. The effects of blindness on children's development. Children, 1966, 13, 23-27.

Cowan, M.K. An examination of sex-role typing in the elementary blind student. Unpublished master's colloquium paper, University of Minnesota, 1968.

Cutsforth, T.D. The unreality of words to the blind. The Teachers Forum, 1932, 4, 86-89.

Deutsch, F. The sense of reality in persons born blind. Journal of Psychology, 1940, 10, 121-140.

Erikson, E.H. Childhood and Society, New York: W.W. Norton, 1950.

Gesell, A., Ilg, F.L., & Bullis, G. Vision: its Development in Infant and Child., New York: Paul B. Hoeber, 1949.

Harley, R. Verbalism Among Blind Children: An Investigation and Analysis. New York: American Foundation for the Blind, 1963.

Hartley, R.E., Frank., L.K., & Goldenson, R.M. Understanding Children's Play, New York: Columbia Univ. Press, 1952.

Huizinga, J. Homo Ludens, Boston: The Beacon Press, 1950.

Isaacs, S. Social Development in Young Children. London: Routledge and Kegan Paul, 1933.

Lieberman, J.N. Playfulness and divergent thinking: an investigation of their relationship at the kindergarten level. Journal of Genetic Psychology, 1965, 107, 219-224.

Lowenfeld, B. Psychological problems of children with impaired vision. In W.M. Cruickshank (ed.), Psychology of Exceptional Children and Youth. Englewood Cliffs, N.J., Prentice-Hall, 1963.

Lowenfeld, M. Play in Childhood. Victor Gollancz, 1935.

Lowrey, L.G. Introduction - therapeutic play techniques symposium. American Journal of Orthopsychiatry, 1955, 25, 574-575.

Mason, W.A. The social development of monkeys and apes. In I. DeVore (ed.), Primate Behavior: Field Studies of Monkeys and Apes., New York: Holt, Rinehart and Winston, 1965.

McAndrew, H. Rigidity and isolation: a study of the deaf and blind. In P.E. Trapp and P. Himelstein (eds.), Readings on the Exceptional Child, New York: Appleton-Century-Crofts, 1962.

Nolan, C.Y. On the unreality of words to the blind. The New Out-Look for the Blind, 1960, 54, 100-102.

Parten, M.B. Social participation among pre-school children. Journal of Abnormal and Social Psychology, 1932, 27, 243-269.

Piaget, J. The Psychology of Intelligence, London: Routledge and Kegan Paul, 1947.

Piaget, J. Play, Dreams and Imitation, New York: W.W. Norton, 1962.

Robinson, H.B. & Robinson, N.M. The Mentally Retarded Child: A Psychological Approach., New York: McGraw-Hill, 1966.

Rothschild, J. Play therapy with blind children. The New Outlook for the Blind, 1960, 54, 329-333.

Rubenstein, J. Maternal attentiveness and subsequent exploratory behavior in the infant, Child Development, 1967, 38, 1089-1100.

Rubin, E.J. Abstract Functioning in the Blind, New York: American Foundation for the Blind, 1964.

Sadler, W.A. Play: a basic human structure involving love and freedom. Review of Existential Psychology and Psychiatry, 1966, 6, 237-245.

Sandler, A.M. Aspects of passivity and ego development in the blind infant. Psychoanalytic Study of the Child, 1963, 18, 343-360.

Singer, J.L. & Streiner, B.F., Imaginative content in the dreams and fantasy play of blind and sighted children. Perceptual and Motor Skills, 1966, 22, 475-481.

Slobin, D.I. The fruits of the first season: a discussion of the role of play in childhood. Journal of Humanistic Psychology, 1964, 4, 59-79.

Sutton-Smith, B. The role of play in cognitive development. In W.W. Hartup and N.L. Smothergill (eds.), The Young Child: Reviews of Research. Washington, D.C.: National Association for the Education of Young Children, 1967.

Wallach, M.A. & Kogan, N. Modes of Thinking in Young Children: A Study of the Creativity-Intelligence Distinction, New York: Holt, Rinehart and Winston, 1965.

Wills, D. Some observations on blind nursery school children's understanding of their world. Psychoanalytic Study of the Child, 1965, 20, 344-363.

DEVELOPMENT OF THE SELF-CONCEPT

Carl J. Davis

Mr. Davis is Head of the Department of Psychology and Guidance at the Perkins School for the Blind, in Watertown, Mass. He presented this paper in a panel discussion at the 1962 convention of the American Association of Instructors of the Blind, in Miami Beach. It has previously been published in the Proceedings of that meeting.

It is not possible in the time allotted to attempt a complete discussion of self-concept theory. Instead, I will try to describe how, at certain significant developmental stages, the self-concept is first formulated and then developed.

Initially, as Freud[1] tells us, the infant is completely self-oriented and he is incapable of separating himself from his environment. He perceives his mother and others in his environment merely as extensions of himself, because to him at that stage, they serve the function only of gratifying his needs for food and comfort.

As the infant develops, he begins to see himself as something apart from his environment, and this process, called differentiation, is greatly facilitated in normal circumstances by the development of vision. The child is able, through the use of vision, to perceive that his mother and other individuals are not a part of him, and that there are many objects in the environment, starting with his crib, and extending outward, that are not part of him. He thereby differentiates himself from his environment.

At the same time that he is becoming aware that he is not a part of the environment, he is also becoming aware that he is a separate physical entity; that he can stimulate himself as he plays with his hands and with his toes. By so doing, he begins to develop a mental image of his own body structure. This image is referred to as the body image and it is of utmost importance to the development of a satisfactory concept of one's self.

One becomes immediately aware that the processes I have just mentioned are more difficult for the blind child. We have learned that we must compensate for this for the blind child. The mother must be encouraged to help him to locate the characteristics of the environment about him so that he will be enabled to separate himself from that environment. She can do this by talking to him and by helping him to explore his environment. This is obviously a slower process and we all are aware that this process of differentiation and the integration of an adequate body image proceeds more slowly for the blind child.

It is just as important for the blind child to become acquainted with his body structure as it is for the child who sees. However, this is more difficult for the blind child to do, and often unintentional obstacles are placed in his way. Seeing children learn about their body structure through visual observations of each other, but too frequently the blind child is prohibited from carrying out his substitute for visual observation. How many of us are there who have not heard of our own or the neighbor's children, during the pre-school years, undressing in the bushes or behind the barn or garage? Even today, many of us are apt to shudder at this because of the residue of Victorian influences that are so strongly implanted in our background. We shudder because we place an adult sexual connotation upon this type of behavior. Yet, in reality, these children are merely comparing their physical structures, learning about themselves, through comparison of their bodies with the bodies of their friends, boys or girls. At a later stage, after the beginning of the school period, adults are apt to be shocked again by their children, because during these elementary school years youngsters once again become curious about their body structure. They are growing and they are changing and each wants to know whether he is developing in the same manner as the other. By this age, as a result of earlier rebukes by adults, the seeing children learn to do this in privacy where they will not be interrupted by the scolding and/or threatening adults. The washroom at school, the bathroom, or their own bedroom at home is often the place where this occurs. Yet even under these conditions for the child who sees, there is no physical contact and the examination is a purely visual one. However, the blind child, in order to perceive, must touch, and whether this occurs in the earlier pre-school period or during the later elementary school age period, many adults are shocked because of the need for these children to utilize tactile exploration of each other in order to reassure themselves that their bodies are developing in a normal fashion. If these blind children are observed by adults, then our Victorian attitudes come into play and we perceive this behavior with the interpretation of what we would expect adults to be doing in a similar situation. Nevertheless, these children will do this - they need to do this - and they should do this - in order that they may be able to maintain a realistic image of their own body structure and that they may be assured that they do not differ critically from their fellows.

I have gone into this discussion of the development of the body image because of the importance of the body image to the development of the concept of one's self. The importance of a realistic mental image of one's body structure is described very well by Goldman[2], who recounts the traumatic experience of a polio-crippled boy who denied the crippling condition and the inadequate structure of his legs until his schoolmates, by taunting him, forced him to face the reality of his physical condition. Nothing should interfere with an individual's opportunity to develop an adequate body image because without it the self-concept cannot be other than distorted.

Throughout childhood, through play and through school experiences, the child continues to develop the concept of himself in relation to his image of his body structure, and this concept is only limited by the limitations of that physical structure. All through this stage it is important that these two be closely related on a reality-oriented basis. Pearson[3] speaks of the internal and external reality and the desirability of equating the two. In so doing, he is basically referring to the fact that the concept of one's self should be closely related to both the capabilities and the limitations of the body structure, so that internal motivation will be realistically related to one's physical and mental abilities. This can be maintained best by helping the child to develop a realistic mental image of his own body structure and what that structure can and cannot do.

As the child approaches adolescence, via the pubertal stage, the normal gross body changes and their ongoing processes disrupt the stability of the body image. This is normally the period of greatest flux for the self-concept, and this is the period during which hero worship in both boys and girls is at its strongest. The children are now moving toward adulthood, and they are also moving outside of the family constellation; in doing so, they select figures from the world of sport and the world of entertainment whom they would like to emulate. Accompanying this hero worship is the establishment of idealized attributes for one's self, which they attempt to attain. This is a time of trial for parents, also, and the situation is further complicated at this stage because the concept of the youngsters is continuously vacillating between a concept of themselves as an adult and as a child. Both guidance and forbearance are called for from the parents at this stage because they need on the one hand to provide support, and on the other hand to provide controls for their children's behavior. As the children progress through this period, their body structure again becomes stabilized in form and the stabilization of the self-concept also begins, although it does progress somewhat more slowly than the stabilization of the body image. At the same time, the levels of expectancy of one's self shift from the highly idealized hero-worship form of early adolescence to a more realistic orientation.

Although the level of expectation becomes more closely oriented to the real abilities as determined within the self-concept, it is doubtful that we would wish to bring them completely in line because it is a level of expectancy or level of aspiration that leads us toward a higher degree of growth and maturation; it is this which is so very important in providing us with motivation towards success in establishing our life pattern as an adult.

There are two special conditions which I should like to consider with you. As I have been speaking I had in mind the congenitally blind child. That group of children who are adventitiously blinded present a different problem for the development of the self-concept, because these children have had an image of their body structure and a concept of themselves that has been destroyed by the loss of vision. This necessitates a relearning process for these children so blinded to permit the restructuring of a new body image and self-concept. The evidence that we have available seems to indicate that this relearning process proceeds more rapidly the earlier the age at which it occurs.

The second special condition is that group of children who, legally blind, may be considered partially sighted. Many of the children in this group, when they reach adolescence, have an exceedingly difficult time in establishing a stabilized concept of themselves, due to the fact that in one situation they are perceived by others as blind persons - yet in a different situation they may be perceived as seeing persons. In the same fashion, they have to function in some types of situation as blind persons and in other types of situations as seeing persons, with the result that it is more difficult for them to establish a satisfactory image of their own body and their own limitations and abilities. I have had many of these youngsters state to me in the counseling situation, "I am neither fish nor fowl." Fortunately, although the process of establishing a stable concept of themselves takes a longer time than it does for seeing or for blind children, by the time they have reached adulthood, the majority of this group have worked out a satisfactory resolution of a single functional self-concept.

References

1. Freud, S., New Introductory Lectures on Psychoanalysis; Norton, New York, 1933.
2. Goldman, R.L., Even the Night; Macmillan, New York., 1947.
3. Pearson, G.H. J., Psychoanalysis and the Education of the Child, Norton, New York, 1954.

PROBLEMS IN MANAGING THE YOUNG DEAF-BLIND CHILD

Laszlo K. Stein/Mary Briggs Green

The traditional notion of placing all deaf-blind children in residential school programs simply does not work for a variety of reasons. Some states have not invested nor do they plan to invest in such programs. Those residential schools strictly for the blind or for the deaf which are now bending to pressure by accepting a deaf-blind child often serve a custodial rather than educational function. Still other residential programs exclude the younger child because "he does not meet the requirements" of being ambulatory, toilet trained, able to eat solid foods, etc. Finally, some parents resist or refuse to send their child to an institution. As a result, more and more day programs are assuming responsibility for the deaf-blind child. Unfortunately, a substantial number of these children may end up in programs that only partially meet their special needs.

The major question regarding the young deaf-blind child who is ineligible for residential placement is: What elements should be planned into a day program in order to take advantage of an early learning potential and facilitate living at home? The following report is an attempt to develop some general concepts regarding the early management of deaf-blind children and the help that can be offered their parents. Many of our impressions evolved through clinical experience gained over the past several years and crystallized during a recent 4 day workshop on deaf-blind children held at Michael Reese Hospital and Medical Center.

The discussion of problems focuses on four main areas: (a) medical management, (b) presenting problems, (c) early psychoeducational management, and (d) consideration of long term management.

Medical Management

A substantial number of deaf-blind children presently between the ages of 1 and 7 years are medically confirmed or presumed victims of maternal rubella. These children may display - in addition to visual impairment and auditory impairment - cardiac problems, mental retardation, and what is often described as psychotic or autistic behavior.

The primary medical problems of visual and cardiac defects are identified almost immediately after birth by the obstetrician or pediatrician. The visual problem, usually congenital cataracts or cataracts that develop shortly after birth, is diagnosed and treated by the ophthalmologist during the first and second years of life. A cardiac condition, if it is the type that can be helped by surgery, is also cared for during the first 2 years of life. For the most part, these children receive superb medical attention for their visual or cardiac problems, and usually by the age of 2 or 3 years corrective surgery has been completed.

Although hearing loss may be suspected as part of the sequelae, attention is initially directed toward the more urgent needs for ophthalmological or cardiological care because these are treatable medical problems. It is sometime later, when the child is 3 years of age or older, that real concern develops about the permanent effects of hearing impairment.

At about the time the responsibilities of the medical specialties diminish, parents begin to face the reality of what the future holds for them and their handicapped child. This is approximately the point where hearing and speech facilities, special education programs, and preschool programs for blind children become involved with the child and his parents. Unfortunately, this is often too late. Therefore, the medical community should be made aware of the need to involve therapy and psychoeducational personnel at the time the child is first diagnosed.

Presenting Problems

The typical presenting picture of a young deaf-blind child referred to a facility for training and therapy is that of a youngster who is severely visually impaired, although usually possessing some perception of light and perhaps shape; is unresponsive to any form of sound stimulation; lacks toilet training; is not walking, and displays many blindisms and self gratifying mannerisms such as hand twiddling, head banging, etc. Medical specialists such as the ophthalmologist, the cardiologist, or the otolaryngologist have done as much as they can do for the child, and further improvement in either vision or hearing is medically impossible.

Although the deaf-blind youngster initially presents a picture of a child deficient in vision and hearing with associated motor delays and cardiac problems, further analysis introduces the question of whether or not they are able to use any of the sensory input systems beyond the grossest levels. Observations of limited use of tactile-kinesthetic, gustatory, and olfactory systems suggest that integrative learning is not spontaneously developed at even the lowest level. Much of what parents observe in siblings as normal development never emerges in these youngsters without specific, intensive teaching of the use of these systems.

The parents frequently present themselves as knowledgeable but hostile toward additional examinations. Most know more about deaf-blind children than the therapist or teacher who is supposed to aid them in the management of their child. Some parents may also display an ambivalent attitude toward their child. The demands the deaf-blind youngster placed upon the mother's time are such that in many instances she is barely able to maintain both him and the household, let alone stimulate or train him to achieve the things that he might be capable of. In some cases deaf-blind children remain at the level of eating baby foods and at the sitting or crawling stage of development because, even if the mother has time, she may be so concerned about causing the child harm or so uninformed in training techniques that she is incapable of helping him advance beyond these levels. This then, in general terms, is what the special educator or therapist faces.

Early Management

It is not surprising that the inexperienced clinician may be somewhat overwhelmed when expected to work with the child described in the preceding section. Few professionals have either the training or the clinical experience to assess such a child's level of functional motor, social, or intellectual behavior, let alone develop appropriate training schemes. Recent interest in early learning potential has just begun to be applied to children 3 and 4 years of age. Many deaf-blind children function far below their chronological age, and it is not unexpected to find some therapists hesitant to work with a child whose developmental skill and level is more like an infant's than a 4 year old's.

If a deaf-blind child is accepted for specialized training, the therapist will frequently concentrate on his area of competence with the resultant risk that the child's other needs are not met. As an example, auditory training with a 4 year old deaf-blind child who has not developed unsupported sitting may be doomed to failure unless that child is brought to a developmental point where he is physically and psychologically ready for such training.

The foregoing remarks emphasize the fact that early management of deaf-blind children requires intervention at the child's level. This is a simple and fundamental point but one that requires emphasis since educational and therapy programs for deaf-blind children often ignore this basic concept. In some instances the therapist may have to put aside learned and highly specialized skills and rely on intuitive feelings and human warmth in order to establish even minimal interaction with the child.

Early management of deaf-blind children is not a traditionally defined educational problem but rather one that requires the expertise of a variety of disciplines. A partial list of such specialists would include; nutritionist, occupational and physical therapist, pediatric-neurologist, ophthalmologist, child psychiatrist, child psychologist, teacher of the deaf, speech pathologist, audiologist, teacher of the blind, and psychiatric social worker.

Our clinical experience and the experience developed during the 4 day workshop strongly suggests that a therapy facility endeavoring to work with young deaf-blind children must have representation at least on a consultative level from each of these disciplines. The teacher in charge of the child, whether a teacher of the deaf, a teacher of the blind, or a trained teacher of the deaf-blind, should be able to command the advice and guidance that specialists can supply.

In order to illustrate the practicality and the need for help from specialists, some specific examples from our experience might be helpful. One of the most persistent questions asked by mothers of deaf-blind children centered around problems of feeding. Many deaf-blind children 3, 4, and even 5 years of age subsist entirely on strained or junior foods. The nutritionist who attended parent meetings during our 4 day workshop answered questions ranging from caloric intake to chewing and swallowing habits. Another area of major concern was the question of walking. It is not unusual to find 4 year old deaf-blind children who, because of their sensory isolation, remain fixed at a stage of motor development far below their actual potential. Evaluations by the pediatric-neurologist and physical therapist, which ruled out neurosmuscular disorders, produced suggestions for training activities that in a number of cases resulted in relatively rapid development toward more age-appropriate motor skills.

In addition to attempting to answer the more immediate needs of the parents, group counseling sessions were organized. Psychiatric social workers met with parents and were able to encourage discussions that dealt directly with the emotional aspects parents faced regarding their severely handicapped child.

From these meetings emerged information suggesting that parents of deaf-blind children may be characterized as having massive anxiety regarding either the physical conditions affecting their child, the developmental effects of these conditions, or their own feelings of guilt and sorrow. Some expressed overwhelming feelings of helplessness, often provoked by overanxious attempts to secure optimal help for their child. Our work with parents as well as with professionals indicated that a parent may become bewildered and immobilized or may simply expect to do too much in tracking down a multiplicity of avenues for help. Parents also expressed commonly shared feelings regarding the lack of information about deaf-blindness among professionals who may offer false reassurances or distorted and delayed treatment plans. This lack of support felt by some parents during the early critical period of the child's life produced prolonged conflict denying both parent and child the atmosphere to develop the interpersonal relationships necessary for emotional growth and development. These examples in part represent the information that can be gathered on a child and his family when a situation is created where a variety of skilled therapists can bring their talents to bear upon the problem.

Regardless of how comprehensive a therapy program may be, failure to involve a deaf-blind child in such a program at the earliest possible age may seriously limit the results any training program can hope to achieve. Too often there is serious delay in effecting the transition from what can be termed early medical management to psychoeducational management.

It is obvious that this transition should be made smoothly and with continuity. One possible solution to this would be establishment of the medical and psychoeducational team concept modeled after the successful cleft palate team approach. The experience of the Syracuse University Center for the Development of Blind Children could also serve as a model for the development of a unified approach to multiply handicapped children (Curtis, Donlon, & Wagner, 1970).

Long Term Management

The question of long term management is dependent on the progress a child has made during the age period 1 to 7 years. In general, three types of programs should be considered: (a) day programs in special education districts for ambulatory deaf-blind children with basic self care skills and established potential for learning through auditory, visual, tactile, or combined methods; (b) residential programs for children who are ambulatory, possess some self care skills, and show signs of learning potential that can best be developed through concentrated residential teaching; and (c) custodial programs for severely involved children who have not demonstrated any learning potential.

The percentage of deaf-blind children falling into each of these categories is, of course, difficult to predict. Of the 12 children studied during our recent workshop, half were functioning at such a low developmental level in relation to their chronological age that in all probability they would ultimately require some form of custodial care. This figure may be partially attributed to the lack of early training.

Conclusion

A full range of psychoeducational as well as medical services must be available to the deaf-blind child if he is to achieve his full potential. Separation of early medical treatment from psychoeducational management too often results in delays and partially met needs. Day care programs assuming responsibility for the deaf-blind child should have available a representative medical and psychoeducational consultative staff in addition to trained full-time therapists. Early intervention is critical and therefore increased efforts should be made to develop the team concept in order to insure a unified approach beginning as soon as the handicapping conditions are identified. Any facility contemplating working with the deaf-blind should realistically consider the professional manpower required and the attendant costs.

Ideally, four types of programs may be required to meet the complex needs of deaf-blind children. First an early management program emphasizing psychoeducational management conjointly with medical care should be designed to identify and train the child who is nonambulatory, who is delayed in self care skills, and whose potential for learning has not been determined. Second, day programs in special education districts should be established for ambulatory deaf-blind children with basic self care skills and a determined potential for learning. Third, residential programs should be established for children who are ambulatory, possess some self care skills, and show signs of learning potential that can best be developed through concentrated residential teaching. Fourth, custodial programs should be established for severely involved children who have not demonstrated any learning potential.

In effect, the realization of these goals is dependent on the interdisciplinary cooperation of the medical and health related professions, special education systems, and state level agencies.

Reference

Curtis, S., Donlon, E.T., & Wagner, E. *Deaf Blind Children: Evaluating Their Multiple Handicaps*. New York: American Foundation for the Blind, 1970.

MERITS OF SPECIAL CLASS, RESOURCE, AND ITINERANT PLANS FOR TEACHING PARTIALLY SEEING CHILDREN

Thomas M.Stephens
Jack W.Birch

Abstract: A review of pertinent literature concerning advantages and disadvantages of three organizational schemes for the education of partially seeing children is presented. Advocates of each plan have given arguments and pronouncements but little research evidence in support of their favored arrangement. Findings of recent studies are compared with the stated advantages for each pattern.

This review is concerned with organizational accommodations used in the special education of partially seeing children. It first deals briefly with the history of fulltime special classes, the resource teacher approach, and the itinerant teacher approach as organizational patterns. Opinions about organizational patterns and their purposes and relative effectiveness are then summarized. Finally, research evidence is presented on the contributions of various organizational patterns to attaining the educational objectives for partially seeing children.

Partially seeing children are defined as visually handicapped children who use ink print as a major mode of instruction. They are children who have visual acuity between approximately 20/70 and 20/200 after optimum correction or who have other visual disabilities and, in the opinion of a vision specialist, can benefit from special instruction.

Organizational Schemes

Three distinct day school organizational plans used for the special education of partially seeing students (Jones, 1963) are:

1. The fulltime special class in which all academic instruction is with a special teacher in a classroom containing only visually limited children.

2. The resource teacher plan in which partially seeing students are enrolled in a regular classroom and obtain most of their instruction within the regular class; the students go to the resource teacher in the special room for instruction and to use special materials as determined by individual requirements.

3. The itinerant teacher plan in which a specialist in teaching partially seeing children travels from school to school in order to provide parttime individual instruction to students and to offer consultant services to regular classroom teachers who have partially seeing students in their classes.

Provisions for partially seeing children in public schools in the United States began in 1913 when day classes for such children were started in Boston and, later that same year, in Cleveland. The class in Boston was housed in a special building separate from normal children. In Cleveland, a cooperative plan was devised whereby partially seeing children engaged in activities requiring special materials and techniques in the special class but participated with normally seeing students in activities not requiring close visual work.

As educators developed programs for partially seeing youth, some used the Boston special day school plan as a model and others emulated Cleveland's cooperative scheme. No evidence has been found, however, to link those historical events with theoretical positions or educational research findings to that era.

Educators have devised many procedures, through the years, to provide for intellectual, academic, and physical differences of students. While present innovations in organizational modifications for instruction are made primarily to facilitate learning, Goodlad (1960) has noted that other purposes also are served. These include financial considerations, administrative ease, and teacher satisfaction. The present authors would add the influence of individuals who have strong views and who are in leadership positions as another factor to consider when attempting to account for the organizational patterns which have developed in the education of partially seeing children and youth.

Opinions - Itinerant and Resource Plans

A survey of the literature concerned with administration of special education for the visually handicapped reinforced Dunn's (1963) conclusion that there appear to be no studies concerned with the advantages or disadvantages of one plan or organization or concerned with comparisons among plans up to the time of his publication. Only one seems to have been made since 1963 (Stephens, 1966) and it will be referred to later in this review.

However, without a basis in specific research, many arguments have been offered in support of itinerant teacher plans and resource teacher approaches in preference to special classes. Jones (1963) cited five of what he states are the most frequently reported advantages:

1. Similarities. Emphasis is placed on the child's abilities and likeness to other children rather than on his differences.

2. Resources. The wealth of resources within the regular school program is made available to these children by including them in most general school activities.

3. Multihandicaps. The services of specially prepared teachers may be made available more easily to visually handicapped children who have additional major handicaps, and to both blind and partially seeing children when they are not kept together in the special class during the entire school day. The mentally retarded child who is also visually handicapped, for instance, can be enrolled in a special class for mentally retarded children, but still be served by resource or itinerant teachers specially prepared to instruct visually handicapped children.

4. Individualized. Under these plans teachers of the visually handicapped devote full-time to individualized instruction of children....

5. Social. The visually handicapped child is educated in a setting more nearly approximating that which he will encounter in adult life (pp. 35-36)

The advantages of itinerant and resource plans reviewed by Jones are presumably less likely to be available to partially seeing children in fulltime special classes. Clearly, these arguments imply that the itinerant and resource plans permit more flexibility than does the special class plan.

Ashcroft (1963) believed that the itinerant plan was often characterized by sound educational practices. He described the direct services to students performed by the teachers as tutorial and remedial in nature. Usually, the direct services take the form of assistance to students in the use of equipment and special materials and in counseling services. Itinerant plans seemed more desirable to him at the secondary level after the students had had instruction in programs similar to resource teacher plans where more services are available.

Ashcroft reasoned that as partially seeing students become more proficient in basic skills they can function effectively with less comprehensive help. The earliest statement of that line of reasoning the present authors found was presented 27 years ago by Pintner (1942). He found what appeared to be a decline in median IQ scores between the ages of 10 and 12 years in students in "sight conservation" (fulltime day) classes. The 1937 Revised Stanford-Binet was used; the total group included 602 partially seeing children. A median IQ score of 97 was found for the 10 year olds in his sample. The 12 year olds had a median IQ score of 90. Pintner attributed this difference to a belief that the more intelligent partially seeing subjects were returned to regular classes between the ages of 10 and 12. Unfortunately he did not report a test of the significance of the difference between the median IQ scores for the two age groups. When the present authors applied a chi square test to his data, the difference in median IQ scores between the two age groups was not significant at the .01 level of confidence. Thus if a criterion of the rigor of the .01 level of confidence is used, there is no ground for considering the observed difference a real one, since chance factors could have contributed to the difference in median IQ's.

Morin (1960) credited an itinerant plan with two non-instructional advantages: (a) reduced transportation costs because the students were able to attend their neighborhood schools, and (b) the itinerant teacher being able to serve more visually limited children. No evidence was reported as to the effectiveness of this plan in relation to academic achievements.

Sibert (1960) described an itinerant teacher program in which the students were seen individually by the teacher for one hour a week. Consultant services were provided by the itinerant teacher to regular classroom teachers regarding proper seating, lighting, and use of special materials and equipment. No data concerning the effectiveness of the program were reported.

The Chicago Public Schools use a resource room placement for children with severe vision impairments who need an intensive program of special teaching. Placement in an itinerant program is made for visually handicapped children with impaired vision at the lower limits of the range for special education services (Powers, Schall, & Welsch, 1965). Again, no evidence was presented to support the differential use of facilities.

Bertram (1958) stated that the itinerant plan can accommodate children from a wide range of ability levels, while the resource plan tends to require intellectual functioning within the average range. But she provided no evidence to support her contention.

Taken together, the arguments presented favor both itinerant and resource approaches, with nothing said in support of the special class. Differential use of organizational patterns is recommended by many, with the implication that a school system should include both the itinerant and resource plans. They should be accessible to all children so that those who would profit more from one or the other may be so placed. It is important to note that the above summary statements are neither supported nor refuted by research.

Research Evidence

Bertram's (1958) claim implies that the itinerant plan allows for more flexibility of instruction than the resource teacher plan. If she is correct, the mean score on intelligence measures for pupils in itinerant plans should be less than for pupils in resource plans, since more partially seeing children of lower intelligence would be found in itinerant plans. Also, the span of pupil intelligence found in itinerant programs, as indicated by such measures as range and standard deviation, should be greater than those found in resource plans. However, a comparison study (Stephens, 1966) of 768 subjects in itinerant and resource plans yielded the reverse, a significant difference in mean IQ scores ($p < .01$) in favor of the itinerant group; the same study showed no significant difference between standard deviations of the IQ scores for the two groups.

Opinions have been expressed to support the belief that partially seeing children who are served by itinerant teachers may have acquired higher levels of academic skills than those provided for through the other plans, with the result that the itinerant teacher needs to have less contact with the students (Ashcroft, 1963). Those who are unable to keep pace academically with only the brief, infrequent contacts with an itinerant teacher would, presumably, be taught by a resource teacher or placed in a special class. If Ashcroft's observations are correct, students in itinerant plans should demonstrate higher academic achievement than those partially seeing children in special classes or resource plans. That position does have some research support. Stephens (1966) found a significant difference when mean scores on the Metropolitan Achievement Test were compared among the three organizational plans, with subjects in itinerant plans having a higher mean score than the children in the other two plans.

Jones and Collins (1965) found that only 16 percent of the programs in a national survey use the fulltime special class plan. But it should not be assumed that only 16 percent of partially seeing children are in fulltime classes. In a recent study of national scope Birch, Tisdall, Peabody, & Sterrett (1966) found that most partially seeing children in the elementary grades are in fulltime special classes. Apparently the districts which enroll large numbers of partially seeing students also tend to use many fulltime special classes. Special class plans do continue to be used. One can surmise that financial considerations may determine when a special class plan will not be used, since it requires a group of partially seeing children in the same building in order to justify the assignment of a teacher.

Another possible reason for the continued use of special classes for partially seeing students may be that regular teachers are reluctant to have these children in their classrooms (Murphy, 1960). When this reluctance exists, isolating these children from regular classes would probably serve to perpetuate unwillingness on the part of regular teachers to receive partially seeing students in their classes.

Historically, there seems to be no theoretical or research based rationale which has guided the development of resource, itinerant, or special class programs. The available opinions are sometimes consistent and sometimes inconsistent with the limited research information available. All things considered, the literature is inconclusive as to the contributions various organizational plans make to the school achievement of partially seeing children.

References

Ashcroft, S.C. Blind and partially seeing children. In L.M. Dunn (Ed.). Exceptional Children in the Schools. New York: Holt, Rinehart and Winston, 1963, Pp. 413-461.

Bertram, F. The education of partially sighted children. In W. M. Cruickshank & G.O. Johnson (Eds.). Education of Exceptional Children and Youth, Englewood Cliffs, New Jersey: Prentice-Hall, 1958, Pp. 265-294.

Birch, J.W., Tisdall, W.J., Peabody, R.L., & Sterrett, R., School Achievement and Effect of Type Size on Reading in Visually Handicapped Children. Pittsburgh, Pa.: University of Pittsburgh, 1966.

Dunn, L.M. An overview. In L.M. Dunn (Ed.). Exceptional Children in the Schools. New York: Holt, Rinehart and Winston, 1963, Pp. 1-51.

Goodlad, J.I. Classroom organization. In C.W. Harris (Ed.), Encyclopedia of Educational Research. New York: Macmillan, 1960, Pp. 413-461.

Hathaway, W. An historical view of the education of partially seeing children. Sight Saving Review, 1953, 23, 148-156.

Jones, J.W. The Visually Handicapped Child. Washington,: U.S. Department of Health, Education, and Welfare, 1963.

Jones, J.W., & Collins, A.P. Trends in program and pupil placement practices in the special education of visually handicapped children. The Education of the Blind, 1965, 14, 97-101.

Morin, A. Waukegan finds advantages in the itinerant teacher plan. Sight Saving Review, 1960, 30, 31-35.

Murphy, A.T. Attitudes of educators toward the visually handicapped. Sight Saving Review, 1960, 30, 31-35.

Pinter, R. Intelligence testing of partially sighted children. Journal of Educational Psychology, 1942, 33, 265-272.

Powers, M.H., Schall, S.M., & Welsch, R.A. Utilization of medical information in school planning for visually handicapped children. Exceptional Children, 1965, 32, 5-14.

Sibert, K.N. Instructional materials and procedures for the partially seeing Sight Saving Review, 1960, 30, 162-165.

Stephens, T.M. Organizational plans for partially seeing children in grades five and six relative to language achievement and individual differences. Unpublished manuscript, University of Pittsburgh, 1966.

Thomas M. Stephens is Associate Professor and Coordinator of Programs for the Emotionally Disturbed, and Jack W. Birch is Professor, Program of Special Education and Rehabilitation, School of Education, University of Pittsburgh, Pennsylvania.

LEARNING THROUGH LISTENING:
A REVIEW OF THE RELEVANT FACTORS

Roy J.Brothers, Ed.D.

Dr. Brothers is on the staff of the
Educational Research, Development,
and Reference Group, American
Printing House for the Blind,
Louisville, Kentucky.

In order to function effectively, all students need ready access to a vast amount of written information. Problems associated with the acquisition of materials often arise for the sighted student, but the same problems are compounded for the visually handicapped student. Transcription of written materials to braille or large type requires time, and the immediacy of each student's needs often precludes the preparation of material in these forms. As a result, the blind student must turn to reader services, tapes, and disc recordings to supplement those materials that are available to him.

Educators of the visually handicapped have become increasingly aware of the trend toward greater aural study, and have begun to search for more effective ways of meeting the present and future needs of their students. It seems appropriate then to carefully review and analyze the research which has focused upon aural study and learning.

Results of listening research have been quite suggestive of practices and techniques which could aid the student using aural materials. A review of the research has revealed that studies of listener characteristics and listener behaviors have been two areas of major research interest. In addition, the relationship of stimulus format to the learning task has been explored.

Listener Characteristics and Listening Comprehension

The arrangement of an aural learning condition for the visually handicapped listener should certainly consider his personal characteristics as well as certain aspects of the educational environment. The effects of such variables as visual acuity, level of IQ, age, and sex must be determined.

Hartlage[17] reported no significant differences in listening comprehension between sighted and blind groups when the groups were matched on the basis of age, sex, and IQ. Testing only visually handicapped subjects, Nolan[26] found that scores obtained from the administration of the STEP Listening Test were not significantly related to categories or levels of visual acuity within the subject group.

In subsequent research, Morris and Nolan[24] noted differences between listeners who generally used braille and those who read large type. Listening scores of the braille readers were superior to those who used large type, but only when the material was judged to be difficult. Differences were not demonstrated when the material was easy.

Level of intelligence has been generally accepted as influencing listening comprehension. Reported correlations between IQ and listening comprehension have ranged from .38 to .59.[2,4] Hartlage[17] reported a rank order correlation of .79 between IQ and listening comprehension for blind students and a correlation of .66 on the same variables for a sighted group. Data reported by Brothers[6] also demonstrated the strong relationship of IQ to listening comprehension.

The age factor in listening comprehension for school children has not been directly explored, but conclusions may be drawn on the basis of studies dealing with age as represented by school grade. Nolan[26] reported that significant increases in listening ability appeared between grades four and six, but with no differences after the sixth grade. These findings partially supported Brown,[8] who had used sighted subjects when he found that listening ability did not improve significantly after the seventh grade. Sex of the listener has not appeared to be significantly related to listening comprehension.[4]

As might be expected, the relationship of academic achievement and listening comprehension have been quite similar to those for listening comprehension and IQ. Nolan[26] has reported the rank order correlations between STEP Listening Test scores and subtests of the Stanford Achievement Battery. Correlations of .32 to .76 were obtained for paragraph and word meaning scores on the SAT and listening scores on the STEP test. In fact, positive relationships between achievement test scores and listening comprehension existed over the range of subtests from grades four through nine.

The investigation of relationships between reading (both visual and tactual) and listening has demonstrated rather consistent results. Hackett[16] defined 11 language comprehension skills and found no significant differences between groups tested by a reading or a listening approach.

Outside Influences on Listening

Effectiveness of aural learning has in some cases been dependent upon the type of material and the level of difficulty it represented. Results of a study by Karraker[19] indicated that type and caliber of material was a primary determinant of effectiveness. Bleighley[3] found that easy material, as classified by the Dale-Chall formula, was more easily comprehended than difficult materials. Nolan[26] reported superior comprehension scores when materials classified as social studies were compared with literature or science. The study further revealed that literature was superior to the science matter.

Klare, Mabry, and Gustufson[20] expected that material having a high interest, as measured by the Flesch Human Interest Formula, would produce increased comprehension by being more acceptable. Their assumptions, however, were not supported in terms of the amount read or degree of immediate retention. On the other hand, Martin[22] noted that the subject's interest in the material and his opinion relative to its difficulty correlated significantly with comprehension scores.

In addition to differences associated with the types of material, rate of presentation has also received some attention. The presentation rate of recorded materials may be accelerated by the use of various compression techniques. It has been generally demonstrated that listening comprehension begins to fall rapidly when the presentation speed reaches 250 to 325 words per minute.[13] Woodcock and Clark[31] found that word rates in the range of 228 to 328 were more efficient than normal rates when using a criterion based on a learning efficiency index. Because compression techniques require special equipment and processing time, compressed materials have been relatively inaccessible to the student.

As part of a listening efficiency study, Nolan[26] investigated distributed learning and found that listening distributed over a three-day period was superior to a single massed presentation. When additional practice or time on the task was provided, however, learning was correspondingly increased by nearly equal amounts.

Canfield[9] has noted several general conditions necessary for a listening environment. These are: (1) adequate physical conditions; (2) materials appropriate for the individual student; (3) provision of opportunities for self-expression; and (4) minimal auditory and visual distractions.

Results of the research have focused upon the characteristics of the listener, his interests, and the degree of his dependence on aural stimuli for information. Differences have also been noted in relation to types of material and the physical conditions of the listening situation. Closely related to these factors are the actual listening behaviors of the student.

Listener Behavior and Listening Comprehension

Several surveys have investigated the listening behavior and study habits of visually handicapped students. Carter and Haskell[10] interviewed 366 full-time college students who had used recorded material provided by Recording for the Blind (RFB). The study noted a strong relationship between the user's study techniques and his level of academic functioning. Nolan[26] and Morris and Nolan[25] interviewed high school and college students concerning desirable textbook format and the study techniques being used in aural study.

The surveys have shown that the characteristics of the material, its presentation format, and the nature of the listening task present common problems for the user. Reported study habits varied with the type of materials and the level of difficulty. Reports indicated that the college group was generally satisfied with fast-paced material, but felt the presentation of technical matter and languages should be at a slower rate. Science material was commonly heard several times, but preferences were mixed concerning repetition within other subject matter areas.[26] The time spent on the listening task often varied in direct proportion to the length of what was being read. Study time was also scheduled to reflect the subjects' needs for massed or distributed practice.

Although listening behavior was shown to be related to the type of material and to the purposes for listening, another component of the listening-study condition was recognized. The most common behavior reported was that of note-taking. Described as student-subject matter interaction, it usually comprised some part of the listener's study activity. When using recorded material, subjects found it more efficient to summarize thoroughly with notes or outlines during the first presentation and refer back to them for review purposes.[26] The Carter and Haskell[10] report noted a common practice of selectively recording important passages on a second recorder. It was noted that subjects who owned a tape recorder read more material and received higher average grades. In each of the studies, the majority of the subjects had not received formal instructions in the use of recorded materials, but apparently those who had an opportunity to become familiar with recording technique were able to be more innovative in their use of the equipment. These results suggest that features found in the playback equipment may structure some of the listening behaviors adopted.

Another aspect of the listening task was that of maintaining an adequate level of concentration. Respondents felt that control of the environmental situation was improved through the use of earphones or some other strategy to minimize potential distractions. Note-taking activity was also considered as an effective means of attending to the task. Nolan[26] found a positive relationship between regular note-taking and scores on the STEP Listening Test. A subsequent study[27] of active and passive listening confirmed the importance of note-taking activity for the comprehension of recorded material. In attempting to focus on the type of notes taken, McClendon[23] investigated three note-taking conditions, but found no significant differences on immediate or delayed recall.

Respondents to the user surveys felt that supplements to the recorded matter should be made more readily available. Additional information such as introductions, study questions, vocabulary word lists, raised line drawings, and complicated tables and formulae were used as examples of needed supplements. Regarding the presentation format of the supplements, recordings were suggested for introductory messages, suggested activities, acknowledgments, and footnotes, but reference materials such as bibliographies, indices, tables of contents, and graphics were preferred in written form. About one-fourth of the subjects indicated graphics would be more effectively presented if both an aural and written presentation were made.[25]

Some of the study techniques currently being advocated suggest that the skills developed for effective reading comprehension are equally applicable for those who learn by listening.[18,26] The abilities to recall or identify a sequence of ideas, to recognize the author's purpose and attitude, and to criticize constructively have been identified as desirable objectives for both the reader and the listener.[11,29]

Study Models for the Aural Learner

Assuming then that similar types of student behaviors are required for the effective input of aural or written messages, the study programs designed for written stimuli may provide a model to describe the study task of the aural learner. For example, an analysis of the "PQRST Method"[28] or the Triple S,"[12] which were designed for the study of written materials, has revealed that the tasks of the student are quite similar and well defined. Initially the student is asked to achieve a frame of reference or anticipate the nature of the materials. The next phase of the plan proposes that the student actively interact with the material and, finally, the student summarizes and states in his own words the basic conclusions or generalizations that were drawn from the reading.

These study plans were developed to utilize the presentation formats commonly found in many textbooks. Written materials use several format techniques to achieve a desired emphasis. For example, a student may quickly learn to attend more closely to words or phrases which have been underlined, italicized, or set apart by type size.

At the same time, the task of scanning, note-taking, or summarizing may be facilitated through the use of this kind of visually-oriented cue. When the material has been recorded, special measures are sometimes needed to insure that the desired emphasis shall not be lost.

Stimulus Format and the Learning Task

As previously stated, the task of the listener has been thought to involve: (1) establishing a frame of reference, (2) interacting with the materials, and (3) assimilating the message to the extent that it is understood. In their efforts to achieve assimilation, experimental formats have attempted to capitalize on the first two aspects of the listening task.

Some formats have attempted to supply a preview or scan of the material through the use of recorded summaries, forewords, and introductions. Friedman, Orr and Graae[14] reported the effects of providing subjects with a written summary of the recorded passage prior to the aural presentation. In addition to the summary, auditory cues which announced material thought to be crucial for comprehension were provided. Although comprehension scores were not significantly different, gains in the group mean in comprehension were noted. Brown[7] reported the improvement of STEP Listening Test scores when a short introductory statement about the test was made. It has been suggested that such precursory materials provided an "anticipatory set" regarding the materials to be learned.

Brandes and Shepardson[5] have noted that when the student was given the circumstances of the selection, its main characters, and some selected vocabulary, an effective frame of reference was being provided. Brothers[6] found that provisions for a general frame of reference did not affect listening comprehension scores significantly, but felt the practice of advance class preparation should continue to be generally effective. Instances were noted in which replications of experimental conditions such as the use of brief descriptions, study questions, and vocabulary exercises resulted in significant increases in learning.[21,30] It now appears that the content of the introductory message may be the pivotal factor in achieving higher levels of comprehension through frames of reference.

Interruption of the Message

The most common technique used to promote a student-subject matter interface has been the interruption of the stimulus message. A recorded message may be interrupted at specific or random points, and the result has subsequently defined the length of the stimulus message. The pause has also provided an opportunity to call for an explicit student response.

Gropper and Lumsdaine[15] arranged an experimental lecture situation for six classes of seventh and eighth grade students. The lecturer paused at strategic places to allow the subjects to make active and explicit responses. It was noted that the experimental subjects were also provided with feedback to their responses. Results of the study indicated that the experimental lesson was significantly more effective than the regular presentation.

Research in the area of compressed speech has suggested that interruptions of the message for recitation result in greater comprehension of compressed materials than messages presented at compressed rates without pauses.[13]

Nolan[27] utilized an interrupted message model to study the effects of active listener participation. Three conditions were established, two of which required active listener response. The third condition was described as passive listening and did not require a specific response to the message. Results indicated that interrupted modes were superior to the continuous or passive listening condition when the time provided by the interruption was used to interact with the material.

The possibility existed that the length of the stimulus message was an important factor in the results obtained. Brothers[6] found that segmenting the aural stimulus into message lengths of six minutes and less did not significantly affect comprehension scores when the time allowed for the subjects to interact with the total message was held constant.

Conclusions

In a review of audio-visual communications research, Allan[1] has suggested several simple practices which should certainly enhance the possibility of greater aural learning. Suggested techniques were: (1) the study of difficult words, (2) the use of study questions, (3) asking questions of the material, (4) reading a brief account of the content, and (5) focusing upon the importance of the material. Basically the suggestions provide many opportunities for the student to attend more closely to his instructional materials.

An underlying objective in most of the studies has been to encourage greater attention to the listening task. Efforts to achieve this objective have resulted in the manipulation of the stimulus format, the control of the listening environment, and the suggestion of specific listener behaviors to be used. Characteristics of the individual have been noted since they will influence our expectations regarding the students' listening performance.

For the most part, those factors identified have been associated with significant increases in aural learning, but further verifications should be made. In the last analysis the creation of an effective learning environment is the responsibility of the teacher. Day-to-day decisions are required as attempts are made to develop and utilize innovative and effective teaching techniques within the framework of a controlled learning environment. In this respect, a review of the relevant research may serve to facilitate the decision-making process.

Bibliography

1. Allan, W.H. "Audio-Visual Communication Research." In Encyclopedia of Educational Research, edited by C.W.Harris, pp. 115-137. 3rd. edition, New York: Macmillan, 1960.

2. Baldauf, R.W. "A Study of a Measure of Listening Comprehension and Its Relation to the School Achievement of Fifth Grade Pupils." Doctoral dissertation, University of Colorado. Order No. 61-815. Ann Arbor, Mich.: University Microfilms, 1960.

3. Bleighley, K.C. "An Experimental Study of the Effect of Four Speech Variables on Listener Comprehension," Speech Monographs 29 (1952): 249-258.

4. Bonner, M.A. "A Critical Analysis of the Relationship of Reading Ability to Listening Ability." Doctoral dissertation, Auburn University. Order No. 60-5336. Ann Arbor, Mich.: University Microfilms, 1960.

5. Brandes, P.D. and Shepardson, M. "The Effect of the Introduction on a Literary Communication," Quarterly Journal of Speech 53 (1967): 152-155.

6. Brothers, R.J. "Aural Study Systems for the Visually Handicapped: Effects of Message Length and Frame of Reference Upon Learning." Doctoral dissertation, Peabody College. Order No. 70-14436. Ann Arbor, Mich.: University Microfilms, 1970.

7. Brown, C.T. "Studies in Listening Comprehension," Speech Monographs 26 (1959): 288-294.

8. Brown, J.I. "The Measurement of Listening Ability," School & Society 71(1950): 69-71.

9. Canfield, G.R. "Approaches to Listening Improvement," Elementary English 35(1958): 525-528.

10. Carter, B. and Haskell, M.R. The Development of Basic Research Materials and a Manual on the Use of Recorded Textbooks. New York: Recording for the Blind, N.D.

11. Educational Testing Service. STEP Teacher's Guide Princeton, N.J.: The Service, 1959.

12. Farquhar, W.; Krumboltz, J.; and Wrenn, C.G. Learning to Study, New York: Ronald Press, 1960.

13. Foulke, E. and Sticht, T. "A Review of Research on Time Compressed Speech." In Proceedings of the Louisville Conference on Time Compressed Speech, edited by E. Foulke. Louisville, Ky.: University of Louisville, Center for Rate Controlled Recordings, 1966.

14. Friedman, H.L.; Orr, D.B.; and Graae, C.N. "Effects of Listening Aids and Self-Pacing on the Comprehension of Time-Compressed Speech." Paper presented at the meeting of the American Psychological Association, Washington, D.C., August-September, 1967.

15. Gropper, G. and Lumsdaine, A. "The Use of Student Response to Improve Televised Instruction: An Overview," Studies in Televised Instruction, No. 2, 1961 (Report No. AIR-C13-61-FR-245).

16. Hackett, M. "A Hierarchy of Skills in Listening Comprehension and Reading Comprehension." Doctoral dissertation, University of California, Berkeley. Order No. 69-14,900. Ann Arbor, Mich.: University Microfilms, n.d.

17. Hartlage, L.C. "Differences in Listening Comprehension of Blind and Sighted," International Journal for the Education of the Blind 13(1963): 1-6.

18. Hatfield, W.W. "Parallels in Teaching Students to Listen and to Read," English Journal 35(1946): 553-558.

19. Karraker, M.E. "An Evaluation of the Influence of Interest and 'Set' on Listening Effectiveness in Basic Communication Class," Speech Monographs 29(1952): 117-118 (abstract).

20. Klare, G.; Mabry, J.; and Gustufson, L. "The Relationship of Human Interest to Immediate Retention and to Acceptability of Technical Material," Journal of Applied Psychology 39 ((1955): 92-95.

21. Lumsdaine, A. "Instruments and Media of Instruction." In Handbook of Research on Teaching, edited by N. Gage. Chicago: Rand McNally, 1963.

22. Martin, W.I. "A Comparative Study of Listening Comprehension in the Teaching of Literature to Seventh Grade Pupils." Doctoral dissertation, Northwestern University. Order No. 61-5336. Ann Arbor, Mich.: University Microfilms, 1961.

23. McClendon, P.I. "Relationships Between Note-Taking Practices and Listening Comprehension of College Freshmen During Expository Lectures." Unpublished doctoral dissertation, State University of Iowa, 1956.

24. Morris, J.E. and Nolan, C.Y. Aural Study Systems for the Visually Handicapped: Some Parameters of Learning by Listening. Louisville, Ky.: American Printing House for the Blind, 1970.

25. Morris, J.E. and Nolan, C.Y. "Materials and Techniques for Study: A Consumer Survey," Education of the Visually Handicapped (1969): 8-11.

26. Nolan, C.Y. Reading and Listening in Learning by the Blind: Progress Report. Louisville, Ky.: American Printing House for the Blind, 1966.

27. Nolan, C.Y. Reading and Listening in Learning by the Blind: Terminal Progress Report. Louisville, Ky.: American Printing House for the Blind, 1968.

28. Staton, T.F. How to Study. Circle Pines, Minn.: American Guidance Service, 1959.

29. Taylor, S.E.; Frackenpohl, H.; and Mallis, J. Teacher's Guide: Listening Programs, Huntington, N.Y.: Educational Development Laboratories, 1968.

30. Wittich, W.A. and Fowlkes, J.G. Audio-Visual Paths to Learning. New York: Harper, 1946.

31. Woodcock, R.W. and Clark, C.R. "Comprehension of a Narrative Passage by Elementary School Children as a Function of Listening Rate, Retention Period, and IQ," Journal of Communication 18(1968):259-271.

CHAPTER VIII

THE PHYSICALLY HANDICAPPED CHILD

by

Leroy D. Klas, Ph.D.

What Are These Handicaps?

Nearly every classroom contains one or two children who could be classified as "neurologically" or "orthopedically" handicapped. Falling into such categories would be children with paralyzed or deformed limbs, the amputee, the epileptic, those with some form of cerebral palsy or muscular dystrophy, and those suffering from postural defects, spina bifida, and arthritis. In addition, other physical conditions, some chronic in nature, can be quite handicapping to the child; these include hemophilia, diabetes, rheumatic and heart disorders, cystic fibrosis, asthma, and allergies. Some children are multiply-handicapped; others are simply classified as "brain-damaged", since they manifest in no prominent way any of the specific conditions listed above, but still demonstrate some impairment in learning due to physical-neurological causation.

Who Are These Children?

These are the children who may use crutches, braces, or wheelchairs to ambulate; these are the children who are frequent school absentees. However, these children, as a group, possess average learning abilities, and with occasional modification of classroom teaching methods or materials can compete favorable with their non-handicapped peers. In addition, they can grow into adults who make major contributions to the society in which they live.

The Medics

Medical research has had and will continue to have a tremendous impact on the future of these children. Today, poliomyelitis and tuberculosis are rare conditions among the young; in addition, sustaining treatment has been discovered for many conditions of as ye unknown causes.

Are We Involved?

However, medical research is not enough. Parents, teachers, counselors, and social workers must not only learn about these conditions but must also learn about children with those conditions, how they behave, what their skills are, how they come to grips with their handicap. Statistics show that nearly all children with these handicaps ultimately gain their training and/or education through the regular schools. Thus, we must continue to prepare ourselves to work with them.

Who, Me?

If we think for just a moment, we will find that this is a very easy area of handicap with which to identify. None of us is exempt, even at "our age". We are all yet susceptible to recreational, industrial, or home accidents, automobile accidents, and serious disease.

Crack The Books!

The reader should familiarize himself with the handicaps mentioned above. Such references as those of Kirk, Dunn, and Cruickshank are quite useful in one's obtaining a general knowledge of these conditions and their educational implications. There are volumes of materials available, as well, on each of the specific conditions. In addition, there are local and national associations for practiclly all of the above handicaps, any one of which can become a wealth of information if contacted. The Community Services Directory for Newfoundland & Labrador, your local physician or hospital, or the Departments of Health and Education are also good leads.

On To The Articles!

The articles which follow represent only a minute sampling of what is available in the area. The bulk of these articles, as you will see, are from the Journal of Rehabilitation. Other journals to which you can go for elaborations of recent research are the Rehabilitation Counseling Bulletin, the Journal of Special Education, Exceptional Children, Journal of Physical Medicine and Rehabilitation, and the Journal of Occupational Therapy, among others. A brief description of each of the articles to follow may help in your reading of them. As you read the following articles, focus on the two or three major ideas which the author is trying to get across; in addition, familiarize yourself with any new terms you see. At the end of these articles there are several discussion questions which may help to both guide your reading and expand your thinking about the topic of physical handicaps. Good luck and good reading.

(1) Sutherland, On the Need of the Severely Handicapped to Feel That They Are Human.
This article is written by a severely handicapped woman; in it she tells how it feels to be handicapped and gives a few pointers to the non-handicapped as to how to treat the handicapped. If you try, you can relate to this one.

(2) Tuscher, Does the Open Door Include the Physically Handicapped? The author describes the architectural barriers that exist in some institutions of higher learning and that further handicap the physically disabled from getting an education.

(3) Kerr, Staff Expectations for Disabled Persons: Helpful or Harmful. Here again, the author elaborates on specific problems which the physically handicapped experience in a world that is just beginning to become aware of the needs of the handicapped.

(4) Cogswell, Self-Socialization: Readjustment of Paraplegics in the Community.
The emphasis in this article is on the critical need of the paraplegic to readjust to his community. Handling the "stigma" of paraplegia in social situations takes time; however, the non-handicapped can do a lot to ease the adjustment.

(5) Mullins, Integrated Classrooms. Here a case is made for keeping the handicapped child in the regular classroom setting. Several treatment areas not normally carried out in schools are suggested. You

should get some specific ideas here for any handicapped children in your class.

Let's Think!

Discussion Questions

1. You want your students to learn about physical handicaps; discuss two or three short stories or novels which you could assign for your class to read.

2. Do a survey and make a list of the architectural barriers in your school and/or community.

3. What factors in a medical setting tend to emphasize dependency over independence?
(Remember your last time in the hospital).

4. In what ways do we *make* physically handicapped people dependent on us?

5. What is a highly *visible* physical handicap? A relatively *non-visible* handicap? How is degree of visibility related to self-concept?

6. Interview a physically handicapped person whom you know.
(See #8 below).

7. What does it mean to be "facilitatively confrontive"?

8. How does one "cope" with a disability?

9. What is the primary goal of "milieu therapy" for the handicapped?

10. Are there any physically handicapped persons in your class? Do you teach any? What is their handicap?

11. How do you know when to offer help to a handicapped person?

STAFF EXPECTATIONS FOR DISABLED PERSONS: HELPFUL OR HARMFUL

Nancy Kerr

Becoming disabled and finding oneself in a wheelchair alters a person's life situation not only with respect to what he can or cannot do physically - which is often the major focus of rehabilitation personnel - but also with respect to social interactions with others. Of particular importance are the places, activities, and relationships that the disabled person is restricted or barred from entering.

The newly disabled person knows, phenomenologically, that he is the same person that he was before the injury to his body occurred. Yet, he is so frequently and persistently placed in inferior status positions by his professional "helpers" that, in time, he is coerced into wondering if he has become a different kind of person. The whole illness and disability experience places him in such new psychological situations where his customary behavior may stimulate responses so radically different from what he is accustomed to that he may often consciously or unconsciously question who he is, what roles are appropriate for him, and what he can expect to be able to do.

The earliest and possibly the critical answers to such identity and role questions come from the hospital or rehabilitation center's personnel in the everyday situations during treatment. In this paper, six pairs of situations drawn from personal experience suggest the implicit questions asked by patients and the subtle, often nonverbal, answers given by hospital and rehabilitation center staff members.

The first situation in each pair illustrates an answer that may lead a paraplegic patient to learn that the problem of adjustment to disability involves more than learning to get around on wheels: It makes explicit the probability that he may have to adjust to being a second-class citizen faced not only with physical obstacles but also with social devaluation. It teaches him that as society views him, he is not longer a responsible, employable adult but psychologically and sociologically a child. The answer given in the second situation in each pair of examples shows how a similar situation was handled in a way that told the patient that he was still a respectable and responsible human being.

I

Patient: Who am I?

Staff I: You are a second-class citizen.

The submissive and devaluating aspects of the role of patient are so frequently accepted by both patient and staff that some curious phenomena become apparent only when a person in a wheelchair enters a medical institution as a professional. On countless occasions, I have been wheeling along in treatment settings in various parts of the country, attending to my business as a teacher, researcher, or clinical psychologist when an attendant or nurse would hustle alongside and challengingly or sarcastically say, "Hey, where do you think you're going?" or sometimes "You're not supposed to be out here - go to your room." On one occasion, solely on the basis of my occupancy of a wheelchair, a nurse tried physically to put me to bed! More than once my wheelchair has been hijacked by an attendant who, without comment, wheeled me to the dining room of his institution.

Although I have no objection to consuming a free meal, in general, following one of the "You can't come in here" comments or "You must go there" actions, I tactfully explain my business. Invariably the response is, "Oh, I'm sorry, I thought you were a patient!" There is immediate recognition by the staff member that his behavior toward me was inappropriate. But there does not seem to be the slightest trace of awareness that the same ordering, grabbing, and shoving would be inappropriate even if I were a patient.

One is reminded of the unwritten rules of the army: "If it moves, salute it; if it's on the ground, pick it up; if it's a lineup, join it." The unwritten rule of perhaps too many rehabilitation personnel often seems to be "If it's in a wheelchair, it must be a patient - push it somewhere else."

Staff II: You are a human being.

In good rehabilitation centers, alternative kinds of behavior can be found among institutional personnel. I remember one attendant in particular who was named as "outstandingly helpful" by every person I interviewed in a study on the meaning of help. Each day when the rest of the staff rushed out of the physical therapy room for a coffee break while leaving me stranded on a floor mat to rest, this gentleman would return to bring me a cup of hot coffee and a portion of whatever goodies were in the dining room. In general, when he had taken a person somewhere, he never failed to wait a moment to ask if there was anything else he could do. He always approached patients from the front where he could be seen (rather than suddenly grabbing their wheelchairs from behind); and he asked, for example, if one was ready to go to dinner. He was the person who would stand by and give moral support when a frightened patient was supposed to be transferring into bed independently. (Few people realize that the space between a wheelchair and a bed can look as deep and forbidding as the Grand Canyon!) He was one of those rare people who had the sensitivity to handle hundreds of situations, big and little, in ways that were truly helpful from the patients' standpoint.

There was another attendant in the same institution who was liked by patients almost as well because he practiced the kinds of behavior just described, although his actions appeared to be somewhat less skillful and natural. When I asked him where he had learned to be so considerate, he replied that he had had a course for psychiatric attendants at Michael Reese Hospital in Chicago. When he came to a rehabilitation center, he was surprised to learn that disabled persons like to be treated as people just as psychotics do. His approach, however, was pragmatic rather than empathic. He had learned that if he told a patient he was going to be five minutes late; if he asked whether the patient was ready to go; if he chatted about the weather or the topics of the day; then, he found, the patients didn't gripe so much about matters over which he had no control and his job was much easier.

Apparently some people are naturally therapeutic in their relationships with patients, others can be educated to behave nicely and therapeutically even if it doesn't come naturally.

II

Patient: How hard is it going to be to get around in a wheelchair? Can I really be independent?

Staff I: It is going to be very difficult indeed.

I have a special problem with elevators. If I try to enter one of the elevators for "regular people," usually I am told that I must go to the patient's elevators somewhere in the rear since regular elevators are for regular people and not for wheelchairs or wheelchair people. (Comments, in this situation, about "the patient as nigger" are not appreciated.) After finding the patient elevator, two potential problems remain: (a) If some observant soul discovers that I am not wearing pajamas or a hospital robe, I may not be allowed in that elevator either; (b) Some hospitals have a rule that all patients in transit must be accompanied at all times by an attendant.

Staff II: You are a responsible person who is quite capable of getting around on your own.

On the brighter side, some treatment centers have a system that allows mobile patients to go almost anywhere in or out of the institution if they leave a note at the nurses' station specifying where they can be found if needed and when they will return. In institutions using this system, usually, the patients are responsible also for getting themselves to appointments and therapies on time.

III

Patient: Can a disabled person really go out and earn a living?

Staff I: Probably not.

One of the finest and most prestigious rehabilitation centers in the country has excellent ramps and bathroom facilities in all patient areas. The room used for professional meetings, however, can be reached only by a long stairway: There is no elevator. While the patients back on the wards are being told that they can enter or re-enter the world of work, apparently no one ever expected that someone in a wheelchair might attend a professional meeting on rehabilitation. If rehabilitation centers contain impassable architectural barriers, how realistic is it to expect that other settings will be accessible?

Staff II: Sure. See for yourself.

Another well-known rehabilitation center[2] employs disabled persons for responsible positions in the organization without discrimination. At one time the bookkeeper, head receptionist, head nurse, building manager, a physician, and many others did their jobs efficiently from wheelchairs. Some of them had extensive arm involvement as well as paraplegia, and some used breathing aids. However, there were no cosmetic criteria. All that was asked was that the person should do his job well. Equally important, there was no physical space in the entire center that was inaccessible by wheelchair. Of course, not every person with a disability can or should work in a rehabilitation center. But the high visibility of some workers with serious physical disabilities holding responsible positions, and functioning well in them had striking effects on both patients and staff. No amount of reassuring verbalization alone could have yielded the same result. The whole story that employment was possible for the disabled was believable in that setting. And no one dared make impertinent remarks to a person occupying a wheelchair - he might turn out to be one's boss!

IV

Patient: Do I have any control over my own fate, or am I just a body being run through the repair shop?

Staff I: Just put yourself in our hands. We know what's best for you.

Frank Shontz reported on interesting research at APA a year or two ago in which he demonstrated that at the staff meeting where the patient supposedly participated in his own rehabilitation planning, the "team" did almost all the talking. The few remarks made by the patient were generally confined to "Yes, sir."

When patients inquire about why some therapeutic procedure is being employed, it is not uncommon for them to be told: "It's good for you," or "Doctor's orders."

It is quite possible that patients would be more cooperative and work harder in physical therapy, for example, if they had a very clear idea of what the exercises were intended to accomplish, if they knew why the pain should be endured, and if their agreement was solicited in advance. Does any wheelchair-loving paraplegic ever forget the battle over whether or not he was entitled to refuse to learn brace-walking?

Perhaps the most common way of telling the patient that he is a machine in the shop for repair is the habit some staffers have of communicating with the attendant pushing the wheelchair

---

[2] A well deserved pat on the back to William Spencer, M.D. and his staff at the Texas Institute for Rehabilitation and Research.

instead of with the patient himself. The patient thus finds himself sandwiched between two white coats with one asking the other, "Now, where does she go?"

Staff II: You are an active member of your rehabilitation team.

I had a physical therapist who, while working within the framework of the medical prescription, let me make every decision possible concerning therapy. To be sure, the initial options were small, like which exercises we'd work on first, or which chair I'd learn to transfer into next. Later I was encouraged to make more crucial decisions such as whether it was more important to me - with my plans and obligations - to be a resident patient or a day patient.

V

Patient: Because I am dependent and must ask for help, am I an inferior or bad person?

Staff I: You sure are!

I can think of no single experience more humiliating than having an attendant complain about what a nuisance it is to have to turn you over in bed or give you a glass of water. And yet, the pecking order of most hospitals is such that the only safe way for an attendant to gripe about being overworked is to unleash his hostility on the patient.

Staff II: We're here to help.

There are true professionals in every occupation, i.e., people who do their jobs well and graciously even when they don't feel like it. The image they present is that they are pleased to be of service.

For three months following the onset of polio, I had been in intense pain that was relieved temporarily only by being repositioned. I had done battle with a nurse throughout each night about how often I could be turned over. Upon arriving at another hospital, I asked the attendant the first night what the schedule was for turning patients. She seemed surprised and said, "There's no schedule. Whenever you feel uncomfortable, just press this button and I'll be in. That's what I'm here for."

I said, "But, ma'am - I'm always uncomfortable!"

"That's okay. We'll move you every five minutes if necessary." She fixed me up with the nine pillows I needed in those days. The next morning, when I awoke from my first night's sleep in three months, I discovered that the other 20 patients for whom she cared had had similar experiences.

VI

Patient: Sometimes I worry that being disabled is the same as being a child.

Staff I: Right!

Probably no one has ever survived extensive rehabilitation without undergoing one or more of the parties put on by some well-intentioned community group. On such occasions, appropriate patient behavior consists of smiling while someone places a party hat on your head, saying "thank-you" for the lollypop or other goody that traditionally is handed out, and applauding with some enthusiasm when the little darlings from Kook City's School of Elocution, Singing, and Dancing sing "Kookaberra." The consequences of declining to attend such an affair may range from mild reprimands for being uncooperative to a referral to the psychiatrist on suspicion of "situational depression."

Staff II: You are an adult who happens to be in a wheelchair.

Probably one good rule of thumb for any recreational therapist might be to ask whether a proposed party is something she herself would like to attend or if she would throw such a party for her own adult friends. In some degree, a seriously ill person may tend to become more egocentric in thought and childish in behavior, but these are transient responses to stress that should be extinguished.

There are many aspects of a patient's medical regimen in which it might be unrealistic to allow him complete freedom of choice. Other regions of the rehabilitation center, such as the recreational activities for example, are not so circumscribed. The staff has the option of strengthening childish behavior by placing patients in childish situations or they can use recreational activities, from the very beginning, to create situations that encourage mature freedom of choice, relearning or maintenance of "taking responsibility," and strengthening of the process of decision making.

DISCUSSION

Common questions asked by patients, consciously or unconsciously, have been outlined together with some positive and negative answers they receive from the behavior of the treatment staff in everyday situations. There are many more such questions often unverbalized or unperceived but which, nevertheless, may have marked effects on the rehabilitation process. Unfortunately, there is little objective evidence.

Although there have been a number of excellent, descriptive reports of the mental hospital milieu by psychologists and sociologists who have entered such institutions posing as patients, there appear to be no similar participant studies of the social-psychological environment of hospitals or rehabilitation centers. Such studies are needed. Both formal research studies to provide "hard data" and informal participation to increase the understanding of staff would be valuable. The latter could be accomplished easily by any person working with the disabled simply by borrowing a wheelchair and moving into a center for a day, a week, or a month.

The following are obvious possibilities for needed research:

1. What is the nature of staff-patient interactions? In the light of our ignorance, descriptive and counting studies are of first importance, but ultimately such work must lead to the specification of the conditions under which such interactions can become more positive and growth-inducing.

2. What is the social structure of the general hospital or the rehabilitation center? What are the realistic barriers that impede or frustrate patients' psychological progress? Considerable and instructive work along this line has been done for the mental hospital and the mentally ill. Similar studies of the physically ill and the disabled are desirable.

3. On a more limited basis, what can be done within one small aspect of an institution's structure to describe and modify the roles that patients play? In particular, attention might be paid to the restrictions on personal freedom, freedom to choose and select, and the reduced responsibility for one's own fate that seem inevitably to come with living in an institution. What can be done to increase the decision-making powers of the patient? Equally important are studies of patients who have accepted the patient role too well. Under what conditions can staff facilitate their relearning of the mature and responsible adult role?

4. The chronic problem patient who is perceived as too demanding and too dependent is an example of a specific research problem that can be studied independently of institutional structure. Often we jump to the conclusion that such a person has unmet dependence needs stemming from childhood experiences. That may be so. Systematic observation of the social-psychological situation, however, may suggest equally tenable explanations. For example, the patient may fear injury if he attempts new tasks or fear being left alone unaided in situations with which he cannot cope if he ever starts doing things for himself. Sometimes these fears actually may be reasonable; sometimes not. Under such beliefs, however, it is reasonable for the person to play it safe and to insist that someone else take responsibility.

Similarly, a patient may fear the loss of social contact. If the only way a patient obtains attention and social contact is to ask for something, it is predictable that patients will do a lot of asking.

Finally, the level of hostility between patients and staff may be an important variable. If patients and attendants are fighting, the demand "you are going to do this for me - or else" is one way for a patient to sustain his self-esteem, even it it is an unhealthy and less desirable way than some others.

It may be reasonable to start looking for unmet dependence needs only if it is certain that (a) the patient has reason to know that he will succeed in a task that is requested of him; (b) he is not afraid; (c) he is assured of social contact and appropriate attention even if he does take care of himself; and (d) he is not "mad" at anyone. No doubt there are some patients who demand that others do for them what they are well able to do for themselves. Even here, however, the problem is not how to classify them but how to create a therapeutic environment that will help resolve infantile problems.

In summary, the expectations of staff are helpful if they help the patient to gain or regain maturity and self-esteem. They hinder if they impede the patient's progress. Help, as Tamara Dembo has said, is whatever the person perceives as help. Such a definition is good to remember because it constantly leads us back to the patient with the simple question: "What can I do to help?" Lee Meyerson has described the ideal helper as being like the blockers on a football team who run interference, clear the paths, create the opportunities, and make it as easy as possible for the patient to take the ball and run with it. That, perhaps, is our major task as rehabilitation workers. It is the patient's ball game and by our appropriate or inappropriate expectations and behavior, we can help or we can hinder.

INTEGRATED
CLASSROOMS

June B. Mullins

Dr. Mullins is coordinator of the Teacher Preparation Program in the Area of Crippled and Other Health Impaired, Department of Special Education and Rehabilitation at the University of Pittsburgh. She has had experience as a teacher of children with crippling conditions, neurological disorders and emotional disturbances. She received her Ph.D. in special education and rehabilitation from the University of Pittsburgh.

Physically handicapped persons of normal intellectual potential are expected to compete with non-disabled persons as adults. If the two groups are segregated from each other during childhood, the former experience a difficult "re-entry problem" into a society from which they have been systematically excluded during their formative years. The latter succumb to the "myths of illness" discussed by Wright (in Malikin and Rusalem, 1969 p. 91-102) thereby decreasing acceptance of the handicapped in the social and work worlds. Goffman (1963) underscores the fact that "normalcy" is an illusive standard to which very few individuals can ever conform. Problems of illness, lessened physical vigor and ability, and death are certainly the common province of all human beings. Why then, should they be a basis for segregation of children? The literature has shown repeatedly that not only does the handicapped child benefit from interaction with normal peers, but the latter, too, benefit from his inclusion in their class settings.

Thirty-one federally funded college and university programs concerning disabled children, attest to the importance of this disability group in special education. The writer is associated with a teacher training program which is one of twenty-four at the masters degree level (1968-69) and is probably typical of many others. It attracts teachers as part-time students as well as full-time students. Practicum facilities for students and employment opportunities for graduates of the program are excellent. In the several school systems serving this particular city area, there are seven special schools with classes for the physically handicapped, two school-hospital rehabilitation settings, and an entire school exclusively serving physically handicapped children.

It is true that there are adequate training programs, varied and well endowed schools and institutions, and fine teachers: but in practice, classes for the physically handicapped frequently are not an optimum educational situation for crippled and ill pupils and are occasionally extremely detrimental. This conclusion seems to be implied by others in special education (Dunn, 1967); however, this point of view has not been taken seriously to the extent that policies have been re-examined and practices modified by special educators in a position to do so. This paper attempts to identify some critical problems in the area of physically handicapped children and suggest some remedies.

INVALIDITY OF CATEGORIZATION

The lack of educational or psychological relevance of categories indicating impairment of muscles and bones, mobility restrictions or ill health is well known (Albee, 1968). It is doubtful that any educator would argue for the theoretical validity of such a classification.

In support of segregating crippled from normal children it is argued that in practice crippled childrem may need reduction of architectural barriers, physical therapy, frequent medications, help in feeding and toileting, prostheses, and orthotic devices to which special schools or hospital settings may be able to accommodate more easily than the regular public school. However, physical and medical needs do not relate directly to the teaching-learning process and cannot possible mandate sound educational procedure, any more than the medical, nutritional and transportation needs of normal children can determine pedagogy.

What educational justification a fully equipped special school can have for segregating crippled children from other disability groups is difficult to fathom. In practice the administration may have organized for two "PH classes," has hired two teachers stamped with state PH certification and will fill the classes with bodies, labeled by physicians as appropriate for these classrooms. This kind of procedure is in complete contradiction to the explicit aims of special education: to be concerned with ability (not disability); to fulfill a child's highest potential (not to fill categorized classrooms).

To suggest that special educators replace the medical model with an educational model in no way implies criticism of the medical profession. Physicians are crucial participants on the team that provides for the guidance of the crippled child. However, if educators assume the role of educational evaluation and educational management of crippled children, other professionals will not have to do so. The burden of change toward sound educational policy and practice cannot rest on the medical profession nor upon occupational and physical therapists. It is an appropriate concern of both special and regular education administrators and teachers in the public school system.

Much responsibility for sound educational change could justifiably be assumed within institutions of higher learning by those who are engaged in teacher and leadership preparation and in research in special education. However, at least some of these institutions have perpetuated admittedly unsound policies such as the use of medical classifications for educational purposes due to real or imagined fears of loss of financial support.

On the firing line in the classroom, teachers and children are caught in a system which perpetuates educationally unsound and unjust practices. The desperation of teachers and unhappiness of children must be communicated to those who have the power, vision and hopefully the courage to change the system. The examples used below to illustrate problems were reported by students and teachers in numerous school districts in two states. They have been furnished in the context of workshops, university seminars and school classrooms.

UNNECESSARY SEGREGATION

Unnecessary segregation of normal learners from neighborhood schools has occurred as special education facilities have become available.

Report: An achondroplastic dwarf of average intelligence and considerable athletic ability was transferred to a class for the physically handicapped in a special school miles away from his neighborhood. The child's mother was having difficulty accepting him, so asked her doctor to sign for his transfer. The teacher has tried in vain for two years to have the placement re-examined by the school administration. The school has never contacted the mother.

Report: A mildly cerebral palsied boy from a small town was assigned to a classooom for the physically handicapped on the ground floor of a neighboring city school. The teacher said she could not integrate him into her intellectually limited class since he had superior intelligence. "When he is bored" she said, "I just have him run upstairs to the library to get some books." If he can run upstairs, why is he in the special class? He is in it because his local school district thought him disruptive, so the family physician ordered the transfer.

Ability to self-toilet is the educational yardstick of acceptance of most regular schools, most preschools and many special schools.

Report: A post-polio boy of normal intelligence with flaccid arms could write by mouth and eat his lunch alone but was refused schooling in a small district without special education, because he had difficulty zipping his pants. This impasse was finally resolved by a classmate, who volunteered to assist.

Report: A six year old spina bifida child of average intelligence and normal kindergarten experience was refused admission to his local public school and advised to enter the special school's class for the physically handicapped, because he is too young to crede himself. The first grade teacher in the parochial school accepted him as one of her 60 pupils where she has kept him up to his normal grade for [illegible] years and has toileted him with no aide or special facilities.

Report: Two hemaplegic boys, who play football after school, are assigned by their doctor to a small high school for disabled students. They, and some of their classmates, have begged for a transfer to their neighborhood schools, but neither school officials or the physicians have been willing to consider modifications.

UNTENABLE GROUPINGS

Teachers conducting classes for physically handicapped students have found the widest range of age, intelligence level, and types of behaviors and disabilities of any classes in education including the one-room schoolhouse.

The task of the teacher of such a class in terms of individualized modification of methods, curriculum and materials is gargantuan. The best of teachers cannot supply the kind of group cohesiveness and peer motivation essential to social learning in such a heterogeneous class. The physically handicapped child is often deprived of entering a class on his educational level, because he is placed on the basis of his physical disability rather than on the basis of his psychological and developmental competency.

Report: Many teachers have reported an I.Q. range of over one hundred points in their classes. It is not unusual to find a gifted child with muscular dystrophy sitting next to a cerebral palsied child with unmeasurable intelligence or vice versa. In the same class, there may be children with communication problems such as blindness or deafness who may also be physically handicapped. There will often be one so-called "brain damaged wall climber." The age range of such a class may extend from prepuberty through adolescence.

The school routine is usually secondary to routine of para-educational personnel. It is common practice that physically handicapped children are pulled out of academic classes for physical and occupational therapy and often speech therapy.
Report: In one city, all physical therapy was administered in an institution several miles from the school. High school pupils were absent all morning, two days a week as a matter of course.

It is suggested that the kinds of problems discussed above would greatly diminish if physically handicapped children were evaluated and placed according to their developmental and educational needs and competencies rather than managed on the basis of medical diagnosis.

INTEGRATION APPROACHED

The physical and medical needs of the crippled child in the regular classroom can be approached in many imaginative ways in conjunction with, rather than in conflict with, educational needs. He may need adaptations such as special transportation, ramps, aid in toileting, rest periods, physical therapy, a standing table, an electric typewriter and talking books. These modifications are all in the realm of possibility. For example, if schools really wish to integrate crippled children with normal children, ramps can be installed in regular schools for wheelchair students. An aide can be hired to assist with toileting.

One could well examine the assumption that the physical therapy, for example, should be administered in an academic setting. Better solutions can be found to the problem of interrupted academic day for para-educational purposes. Physical and occupational therapy could be administered after school. A Saturday physical or speech therapy session would seem to be as sensible as Saturday dentist examinations or piano lessons.

Some crippled children need intensive physical therapy only at certain developmental stages. For example, they need intensive training to go from a two point to a four point crutch gait or when stair climbing or credeing is learned. Summertime use of the physical therapy facilities for such training would leave the school year more exclusively for academics.

Regular school systems can become leaders in demonstrating the feasibility of reducing architectural barriers for all handicapped persons. When special problems due to physical handicapping or illness arise, these can be handled according to individual requirements in conjunction with the child's parents, physician, home and school visitor or other appropriate professionals.

THE PHILOSOPHY IN PRACTICE

The solution to the problem of the integration of the physically handicapped in a regular school program has been the concern of the Clark County School District, Las Vegas, Nevada since 1958 (Marr, 1969). Of their present school population of 70,000 students in 85 schools, only 52 physically handicapped children receive special education in a separate setting. Marr (1969) reports, "The tough rules of entrance to its Special School for the Physically and Multiply Handicapped have caused regular school personnel, pupil personnel services, community health agencies, etc. to jointly develop a cooperative approach to the solution of the problem of the physically handicapped in a regular school program. A Las Vegas 'gamble' that has paid off!" The only children that qualify for the special program are those so seriously handicapped that without specialized handling, care, teaching equipment and methodology they would be declared non-public school children or would at best receive instruction at home.

If the educational rather than medical model is followed, teacher preparation programs can be reorganized. The teachers of the present classes for physically handicapped students have been forced to be the jacks of all trades. Future teachers will be able to specialize in programs fitting their particular expertise and interests, such as very young children, children with communication problems, intellectually limited children or children with behavior disorders.

Hospital, homebound and rehabilitation settings will always be available for those with a particular interest in them for practicum or employment. Actually such settings have usually had better educational grouping than public school classes for physically handicapped students because they have had enough children to group by educational level and special needs.

CONCLUSION

As Ingram (1950) has stated, in the minds of every professional educator concerned with handicapped children, at the base of every education and treatment program, must be the germ of professional self extinction.

This paper has endeavored to argue for the abolishment of educational programs and classes which have for their organizational focus the physical handicaps of the students served. It is contended that a medical categorization is not supported by sound educational rationale, and has created severe problems in the classroom for both students and teachers. A new focus on the educational competence of crippled children is suggested. With such an emphasis in schools and in teacher preparation programs, teachers and students could then proceed more efficiently toward accomplishing their educational goals.

BIBLIOGRAPHY

Albee, G.W. "Contributions of Clinical Psychology to Mental Health." Inter. Assoc. of Applied Psychology, presented at the 40th International Congress, Amsterdam, 1968.

Buchanen, Roger and Mullins, June B. "Integration of a Spina Bifida Child in a Kindergarten for Normal Children." Young Children, September, 1968, p. 339-344.

Dunn, Lloyd. "Special Education for the Mildly Retarded - Is Much of it Justified?" Exceptional Children, 35 (1968): 5-24.

Goffman, Irving. Stigma: Notes on the Management of a Spoiled Identity. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1963.

Gould, Flo and Kerchoff, Richard K. "Space Needed for Human Differences." Offspring, April, 1961.

Ingram, Christine et.al. The Education of Exceptional Children. Chicago: Chicago University Press, 1950.

Little, Audrey. "The Handicapped Child in the Preschool Center." In series Growing Up Together, The Child with a Handicap. May, 1964, p. 7-13.

Malikin, David and Rusalem, Herbert (eds.). Vocational Rehabilitation of the Disabled, an Overview. New York: University Press, 1969.

Marr, Howard. "Education of the Physically Handicapped: an Urban Approach (Abstract), Division on Physically Handicapped, Homebound and Hospitalized Newsletter. Council for Exceptional Children, Sept. 1969.

DOES THE OPEN DOOR INCLUDE THE PHYSICALLY HANDICAPPED?

James Tuscher
Gary C. Fox

Colleges Take Action

This excerpt from the Challenge (Virginia DVR) shows what community colleges can do to aid handicapped students. -Ed.

At Wytheville Community College, for instance, administrators feel that the key to effective help for the handicapped student is early identification of his problem, followed by a plan of action. So the student services division prepares a list of students with disabilities, and counselors inform faculty members, at the beginning of the quarter, of the nature of the disabilities of individuals in their classes who may need special compensating methods, techniques or seating. Faculty members also are alerted about any student with epilepsy, diabetes or other ailments that might need emergency treatment.

A room at the college has been designated as a clinical area. A young polio victim keeps her portable respirator in this area and uses it at intervals throughout the day, with staff and student assistance.

Students with severe visual handicaps take individual intelligence tests if they can't see well enough to take group standardized tests.

When necessary, college counselors confer with local health agencies and rehabilitation counselors of DVR to discuss the student's educational and career plans. Counselors from DVR and the Vererans administration also visit the campus regularly to work with the disabled who are under their supervision.

Other special programs for the handicapped at Wytheville include speech therapy and reading to the visually handicapped, and help with transportation problems.

Other colleges in the Virginia system - there are 16 now - have their own special ways of helping the handicapped meet their difficulties.

One of the primary functions of the community junior college in American education is to put into operation the ideal of equal opportunity for appropriate education for all citizens. Therefore, the basic admission requirements of many community junior colleges are quite simple. In many cases, any person who is a high school graduate or over eighteen years old and seems capable of profiting from the instruction offered is eligible for admission. Such a policy does not guarantee that every student will succeed in college. Rather, it guarantees that every person is given the opportunity to succeed or fail by his own doing. The decisions of admissions counselors or a score on a standardized test are removed as artificial barriers to higher education.[7]

However, at many community junior colleges, very real barriers remain which prevent many able students from getting the education they desire. Practically every community has handicapped students who could benefit from college level training.[2] The barriers that concern these students in nearly all educational facilities are architectural barriers.[3]

STRUCTURAL BARRIERS

Common structures such as steps, steep inclines, narrow doors and curbs are architectural barriers to handicapped persons. They can prove troublesome to any student with ambulatory problems and completely block the independent functioning of the student confined to a wheelchair.

The open-door admission policy has been one of the proudest claims of the community junior college in America. Any institution where barriers to handicapped people remain unmodified has no right to this claim. When the door is closed for any reason other than the student's inability to profit from the programs offered, the open-door policy is not in effect. The size of the group automatically excluded is of little consequence. The fact still remains that able students are turned away.

The problem is not confined to only the students seeking the various types of college level training offered at a comprehensive community junior college. It includes the students who need remedial work in the skills of learning as well as those seeking occupational training.

Our society has come a long way since the time when handicapped persons were pitied and not expected to earn a living. Attitudes in this area are constantly changing as evidence collects that physically handicapped persons are successfully competing for, and satisfactorily performing in, a variety of occupational levels.[4]

The educational needs of handicapped persons are just as varied as those of able-bodied people. However, the most casual survey of educational facilities reveals that opportunities for handicapped persons are severely limited. In many cases, the type of training sought may be available in modified facilities but would necessitate the student's moving several hundred miles. This also may involve payment of fees in addition to those paid by students from the local area.

This dearth of modified educational facilities in most areas seems to cast a shadow of doubt on the extent to which community junior colleges are fulfilling another often stated primary function. Are they really making low-cost education available within commuting distance? Not if some residents must move hundreds of miles and pay out-of-state or out-of-district tuition to obtain educational opportunities that would be available to them locally if the buildings were accessible.

The solution lies not in merely modifying existing community junior colleges but also in establishing new institutions which are accessible to the handicapped students. The goal, of course, is eventually to have comprehensive community junior college districts covering all areas of the country, with all facilities modified. Besides the obvious advantages to the general public, this would greatly facilitate education of handicapped people.

The question, "Is it really worth it to educate handicapped people?" may arise. Might it not be better to put them on some type of pension? Considering the psychological effects of such a policy or the desirability of discarding the American ideal of equal opportunity are not within the scope of this paper. However, it would seem that some of the economic lessons learned from the G.I. Bill could be applied to answer such inquiries. The funds invested in educating ex-servicemen have been repaid to our society many times in taxes on their higher incomes and by their higher standard of living. The evidence collected by Sheilagh and Richard H. Brooks[2] and many others leaves no doubt that handicapped people can support themselves and their families and contribute to society, once they are equipped with the needed skills.

THE HANDICAPPED POPULATION

Another logical question is, "Are there really enough handicapped people to make this effort practical?" The number of handicapped people in this country is deceiving. In part, this is due to nearly all public and private buildings, in the past, being constructed with only able-bodied persons in mind. This leaves few places handicapped people can frequent conveniently. Therefore, a large part of their lives consists of simply traveling to and from work and staying at home.

This relatively limited contact with the general public perhaps explains the belief that there aren't really very many handicapped people around, and until recently, the general public was not aware of and therefore not too concerned with the problems of these people.

It may be logical to assume that the number of handicapped people in this country will decrease because of advances made in medical science, and the problem will eventually be solved. However, this assumption requires a closer look. While the number of people disabled every year by diseases such as polio has been reduced by advances in medical science, the number of injured people modern medicine can keep alive is increasing every year. Prior to

World War II, paraplegia (weak or paralyzed legs) and quadriplegia (weak or paralyzed arms and legs) were usually fatal in a short time. Since then, modern medicine has proven that people with these afflications can be rehabilitated to an active and productive life.[5] The most common cause of these conditions today is spinal cord damage resulting from physical injuries such as falls, automobile or diving accidents and bullet wounds. Any insurance company will verify that the frequency of these types of accidents is constantly rising. With the accident rate increasing and modern medicine's ability to rehabilitate the victims physically, society is assured of an even greater number of handicapped people needing modified educational facilities in the future.

War, although sporadic, causes other disabling conditions. Here again modern medicine combined with vastly improved methods of evacuation and emergency treatment of casualties is saving many who would not have survived in earlier conflicts.

PROGRAMS AND SERVICES

There are many reasons why the comprehensive community junior college is the most appropriate place for handicapped persons to be educated. First, the programs offered at such institutions are so diversified that almost everyone can find a program that meets his needs. Diversification is important because of the wide range of backgrounds found among handicapped persons. Secondly, the richness and variety of programs implied by the multiple purposes of comprehensive community colleges makes unaided selection by the student practically impossible. The extensive guidance services found at community junior colleges assist the student in making the most effective use of the programs offered.[2] This guidance is not completed with the selection of a student's course of study.

Rather, it continues throughout the college years assisting with personal, academic, vocational, financial and family problems as well as any others that may interfere with a student's obtaining optimal benefits from his educational program.

The counseling services should not be seen as advantageous only to the disabled youth trying to make a smooth transition from high school through college and on to the world of work. They are equally valuable to the worker who has become disabled at any age and must be retrained before he can return to a productive life. This often requires that the person make a drastic change in his attitude toward himself and his ability to adjust to a new style of life. A transition of this type can involve as many difficulties as those faced by the disabled youth. The services of a professionally trained counselor can be utilized in either type of transition.

SURVEY FINDINGS

An attempt was made to ascertain how accessible the public community colleges in the United States are to students confined to wheelchairs. Only those confined to wheelchairs were dealt with, as students capable of ambulation could conceivably negotiate many traditional facilities.

In March, 1969, we addressed an inquiry to the dean of students of 200 public community colleges randomly selected from the 1969 AAJC Directory. One hundred fifty-eight (79%) colleges responded to the inquiry.

The first question sought to learn what obstacles a physically handicapped student in a wheelchair would encounter enroute from the parking lot to college facilities.

The second question sought to determine what modifications were being provided for the physically handicapped student in the wheelchair. The results are tabulated in Table 2.

Table 1

Number and Percent of Institutions Reporting Obstacles Encountered by Physically Handicapped Students Between Parking Lot and College Facility*

	TYPES OF OBSTACLES							
Types of Facilities	Curbs		Steps		Steep Inclines		Narrow Doors	
	No.	%	No.	%	No.	%	No.	%
Library	51	32	47	30	20	13	13	8
Classrooms	52	33	68	43	15	9	24	15
Recreation Areas	42	27	41	26	19	12	10	8
Administration Offices	51	32	54	34	15	9	15	9

Table 2

Number and Percent of Institutions Reporting Modifications Provided for Physically Handicapped Students Confined to Wheelchairs*

Types of Modifications	Number	Percent
Reserved Parking Places	83	53
Modified Lavatory Facilities	34	22
Lowered Drinking Fountains	21	13
Ramps	77	49

* Based on a survey of 158 public junior colleges.

Several general informational questions were also asked and are reported below in the findings which can be drawn from the survey:

1. Institutions which offered most of the modifications were attended by more physically handicapped students than institutions without modifications.

2. The year the college was established was not related to the status of physical facilities for the physically handicapped student.

3. A low proportion of junior colleges had modified lavatory facilities (22%) or lowered drinking fountains (13%).

4. About half of the junior colleges had ramps or reserved parking places.

5. One-third of the junior colleges had steps or curbs between the parking lot and college facilities.

6. There was no relationship between status of college facility (interim, permanent or both) and the accessibility for the physically handicapped students.

7. Sixty-four (41%) of the junior colleges reported they did not have a physically handicapped student enrolled at the time of the study.

The provision of access to higher education for physically handicapped persons is based on the philosophy that every member of a democratic society has the right to an education commensurate with his interest and ability. Furthermore, this assumes that society has the corresponding obligation to provide facilities which will allow him to secure such an education. In recent years the number of severely handicapped students of college potential who are interested in attending college has increased rapidly. For many of these potential students, access to a local college or university is often unavailable. Steps in the alleviation of the various attitudinal, architectural and administrative barriers have been taken in a limited number of institutions.

However, there are many junior colleges that could, without expense or effort, be made accessible to physically handicapped students. Federal guidelines are available relating to such adaptations in educational facilities. Assistance is also available through state vocational rehabilitation offices and other publications. [5,6,8]

CONCLUSION

Does the open door include the physically handicapped person? The only way to really answer the above question is to have a person confined to a wheelchair test every part of the campus.

REFERENCES

1. Bluestone, Seymour S. Primer for Paraplegics and Quadriplegics, (2nd. ed.). New York: The Institute of Physical Medicine and Rehabilitation, New York University Medical Center, 1960, p. 1.

2. Brooks, Sheilagh Thompson, and Richard H. "Handicapped Students and California's Two-Year Colleges." Junior College Journal 33 (1962): 275-8.

3. Gust, Tim. "Concerns of Parents of Handicapped College Students." Exceptional Children, Dec. 1967, p. 275.

4. Hetlinger, Duane F. "Physically Handicapped College Graduates." Vocational Quarterly, Winter 1963, p. 85.

5. McGowan, John F., and Gust, Tim. Preparing Higher Education Facilities for Handicapped Students. Columbia, Missouri: University of Missouri, February, 1968.

6. State University of New York. Making Facilities Accessible to the Physically Handicapped. Albany, New York: State University Construction Fund, July 1967.

7. Thornton Jr., James W. The Community Junior College (2nd. ed.). New York: John Wiley and Sons, 1966, p. 34 & 280-81.

8 Tucker, William V. (Ed.). Higher Education and Physically Handicapped Students. Emporia, Kansas: Kansas State Teachers College, September, 1964.

Dr. Fox is associate professor of education and community junior college specialist in the Department of Higher and Adult Education at the University of Missouri, Columbia. He was a Kellogg Fellow in the Community College Leadership Program at Michigan State University where he received his Ph.D. in higher education.

Mr. Tuscher has been a counselor at Forest Park Community College, St. Louis, Missouri since 1969. Previously he was a teacher in Greece, New York. He received his M.Ed. in counseling from the University of Missouri, Columbia.

SELF-SOCIALIZATION
Readjustment of Paraplegics in the Community

Betty E. Cogswell

Assistant professor in the Department of Preventive Medicine and training director for the Sociology-Rehabilitation Ph.D. Program at the University of North Carolina Dr. Cogswell is the author of several articles on re-socialization in the rehabilitation process and is currently working on two books, Family, Chronic Disease, and Disability and Sociology of Rehabilitation. The present paper was delivered at the NRA conference in Cleveland in October 1967.

Paraplegics receive little or no professional help for one aspect of the rehabilitation process. In the first phase of rehabilitation, medical teams are available for teaching the physical skills necessary for independent mobility and for assisting patients to accept the reality of their disability. In the final phase, rehabilitation counselors are available to assist with occupational choice, training, and placement. No professional assumes explicit responsibility, however, for assisting paraplegics to learn the social skills necessary to relate successfully with non-disabled people in the community. Many of these skills are acquired during a middle phase of rehabilitation, after paraplegics leave the hospital and before they resume full-time student or work roles.

Physical disability is potentially stigmatizing, and the salience of stigma increases outside of the hospital. To become successfully rehabilitated, paraplegics must learn to diminish this effect. This, however, occurs through self-teaching, for paraplegics are left to chart their own course. This paper presents findings on one aspect of the process - the way paraplegics sequentially arrange their social encounters. It should be noted, however, that the paraplegics studied were essentially unaware that their experiences were sequentially patterned.

PROCESS OF SOCIALIZATION

Rehabilitation may be analyzed advantageously as a process of socialization. In fact, if rehabilitation had not been conceptualized in this way, the present findings might have been overlooked. A socialization model focuses attention on the processes by which individuals acquire new roles and leads to questions in the development of new self-definitions, skills, activities, and associations. Socialization proceeds through interaction among novices (individuals learning a new role) and agents (individuals responsible for training). In the research reported here, socialization was studied from the perspective of the novices, that is, paraplegics' learning the disabled role. Paraplegics were interviewed at repeated intervals about their experiences after leaving the hospital. They were asked what they did, who they saw, how they responded to other people, and how other people responded to them. Comparison of the experiences of those studied reveals that the course of socialization was structured in a way that provided opportunities to develop and master social skills for relating to people in the normal world. Medical professionals may give patients gross indications that they will encounter interpersonal problems in the community, but paraplegics mainly discover these problems for themselves and proceed to handle them in their own way. They become their own socializing agents as well as agents for the many people they encounter who are uncertain about proper behavior toward a disabled person.

The data for this paper are taken from a more extensive study which followed paraplegics from the time of injury to the time they resumed roles in the community. Data were collected in a general teaching hospital over a five-year period by means of field observations and interviews with members of a rehabilitation team and with 36 young adult paraplegics. Eleven of these paraplegics were chosen for intensive study through a series of open-ended interviews with both patients and their families. Generalizations were abstracted primarily from the intensive study data. Data on the other 25 paraplegics, however, were used to refine initial hypotheses. The rehabilitation team was composed of physicians, nurses, physical therapists, occupational therapists, and social workers. The study group of paraplegics included both males and females, whites and Negroes, and private and staff patients. The subjects' social class ranged from lower class to upper middle.

MIDDLE PERIOD OF REHABILITATION

Paraplegics need a month or more after leaving the hospital to practice the physical skills necessary to function in the normal world. In theory, after this amount of time, they should be physically ready to assume a job or begin job training. A curious finding is that most paraplegics who do eventually resume full-time training or work roles delay for one to several years. The reasons for this delay are of particular concern for rehabilitation practitioners. Some medical professionals note differences in the way patients respond when they first go home and at that time in the future when they become ready to go back to work, but are unable to give a clear description of these differences. Some suggest that this may be a necessary period of mourning that paraplegics cannot be rushed through.

Compared to pre-trauma life, all of the paraplegics upon returning home had a marked reduction in (a) number of social contacts with others in the community, (b) frequency in entering community settings, and (c) number of roles that they played. All of the paraplegics studied eventually showed some increase in these three activities; however, there is wide variation in the extent of increase. If one takes resumption of a work role as a final indicator of rehabilitation, only six of 26 followed regularly at this hospital had reached this level at the time of last contact.[1] The others who arrested at lower levels along the way appear to have had common socialization experiences up to this point.

All paraplegics face problems which evolve from the stigma of disability. In the hospital, medical personnel help paraplegics develop a self-image of independence and personal worth. Although difficulties are encountered, it is easier to establish and maintain this self-image in the sheltered social environment of the hospital than in the world outside. When paraplegics return to their homes and communities, definitions of their disability as a social stigma reach the height of salience. This common problem apparently orders their course of socialization.

SELF-SOCIALIZATION INTO A DEVALUED ROLE

In our society the disabled role is socially devalued. Effective socialization results through learning to reduce the stigmatizing effects of disability. Paraplegics must learn the physical and social skills necessary to play the role with sufficient ease to prevent contamination of their identity as well as their performance of other roles.[2] Physical disability, like most stigmas, is not equally stigmatizing in all social situations. Salience of disability as a stigma varies with the type of individual encountered and the type of social setting. It also varies with the paraplegic's definition and projection of self as worthy or demeaned and with his skill in managing others' definitions of his disability.

In learning the skills of stigma management, paraplegics become their own socializing agents. Change which occurs during this period is more apt to occur through day-to-day accommodation to problems rather than through systematic goal-directed behavior. Paraplegics have a diffuse image of a final goal - reintegration into the community as persons of independence and worth. This image was initiated in the hospital by rehabilitation practitioners. There is, however, no awareness of the intermediate steps necessary to attain this goal. There is no agent to spell out these steps nor to structure progress through the sequence.

Paraplegics, seemingly unaware of the long-range process, order their course of socialization in response to day-to-day problems by avoiding social situations where negative social response can destroy positive definitions of self, by seeking out social situations where demands are not beyond their current level of competence, and by manipulating social encounters to emphasize positive and minimize negative aspects of self. At first, when paraplegics have had little experience in dealing with disability as stigma, the threat of failure is great. Uncertain of what the responses of others will be, paraplegics tend to expect the worst. They are quick to interpret any questionable response as derogatory and rapidly withdraw if they perceive the slightest strain in a social encounter.

They are apprehensive that the attention of others may be focused on the disability and that other aspects of self will be treated as irrelevant.

TIME-STRUCTURING OF SOCIALIZATION

The middle period of rehabilitation begins with a self-imposed moratorium during which paraplegics remain at home. Uncertain about how to proceed, they arrest momentarily. Re-entry into the community is gradual and is structured simultaneously in two ways: by sequential choice of social settings and sequential choice of associates. These two sequences begin with social situations which are easiest to handle and proceed to those more difficult. In essence, paraplegics search out the least threatening environments for the trial of new behavior.

Self-imposed moratorium. On returning home, paraplegics become aware that their once familiar community has become strange. One world is lost, and another is yet to be gained. They are unclear about their own identity, for they must establish new self-definitions for the spectrum of social relationships. These range from casual encounters with waitresses, clerks, barbers, filling station attendants, and dentists to more enduring relationships with friends, dates, teachers, and employers. New definitions of self grow through encounters with others, yet paraplegics are reluctant to resume social contacts. Instead they stay at home for a time in passive avoidance of the outside world. Pre-trauma conceptions of self do not apply; new conceptions of self have not emerged; and action is arrested because paraplegics are unable to answer the question, Who am I?

During the first few weeks, a host of friends and neighbors come to visit, but this is not sustained. Very quickly, paraplegics find themselves alone. They describe this period as a time of social isolation and inactivity. When asked, "Who do you see?" they reply, "Nobody." When asked, "What do you do?" they reply, "Nothing." Since there are few social expectations for the disabled role, paraplegics may stay at home for any length of time without arousing negative reactions from family or others in the community. Family and friends may encourage outings; but if the paraplegic is not responsive, these overtures tend to cease.

Sequential selection of social settings. Paraplegics first enter those social settings which require the least amount of physical and social skill and proceed later to those more difficult. In selecting settings, patients used three criteria: (a) physical accessibility, (b) flexibility for leaving the scene, and (c) salience of stigma.

Physical accessibility may be considered in terms of four types of increasingly difficult settings: (a) those where the paraplegic can go and remain in his automobile; (b) those allowing easy wheel chair maneuvering, where surfaces are level and where there are wide doors and aisles; (c) those that can be easily entered by wheel chair but require the paraplegic to change seats, such as a dentist's office, barber shop, or theater; and (d) those where some physical assistance from another person is necessary, such as climbing long flights of stairs or crossing rough terrain.

Regarding flexibility for leaving settings, paraplegics want the option of leaving quickly if stigma should become salient. They are concerned with the socially acceptable length of time one must remain after entering a setting. Public streets provide the most flexibility. Following in order of decreasing flexibility are stores, places where one may have an appointment which lasts for thirty minutes or longer, visits, and parties. The most lengthy time-binding setting and the last to be re-entered is place of work.

Settings vary in the degree to which each paraplegic feels his disability may become stigmatizing. One paraplegic mentioned that "People don't mind you on the street, but they don't like you in their intimate places like bars." Several mentioned that they began going to church and then to church parties long before they had the nerve to go to private parties. They seemed to feel that people in a religious setting had a greater obligation to accept them.

Sequential selection of associates. As paraplegics resume social relationship in the community, they choose individuals who will support definitions of them as individuals of independence and social worth. These relationships are sequentially timed. First, paraplegics phase-out and seldom resume relationships with pre-trauma friends; second, they begin to associate with individuals of lower social status; and third, they begin to associate with new individuals of equal status.

The paraplegics maintained very few friendships that existed prior to their injuries, declaring that they did not like to be with people that they had known before the accident. Pre-trauma friends are attached to a conception of the paraplegic as he once was and have difficulty relating to him as a disabled person. Paraplegics find it difficult to establish a new identity with those who view them from a pre-trauma frame of reference. These paraplegics mentioned a number of problems which ensued when they tried to maintain old relationships: expressions of pity frequently contaminated the relationship, the sincerity of overtures made by old friends was questioned, old friends were inclined to offer unneeded physical assistance, and paraplegics felt that old friends made invidious comparisons between the pre- and post-trauma relationship. One of the more articulate paraplegics mentioned the added difficulty in assisting others to readjust to him. In discussing a breakup between him and his girl, he said, ".... one person can fight it, but to try to carry somebody, to try to rehabilitate them to me at the same time and take the chance of its not working out, that would be a big loss and might make you tend to give up (in your own rehabilitation)."

As paraplegics begin to acquire new friends, they tend to choose people of lower social status than their pre-trauma friends.[3] These friends may be of lower social class, decidedly younger or older than the patient, or less attractive in other ways. By choosing friends of lower status, paraplegics are able to balance the negative definitions of disability against some negative characteristic of the other person. If, in these relationships, paraplegics become successful in projecting themselves as a person of worth and become skilled in eliciting this definition from others, they proceed to more difficult relationships eventually forming successful relationships with new individuals of equal status. Physical disability will always pose problems for relationships with others, but paraplegics learn to handle these problems with sufficient ease to maintain stable social relationships.

AWARENESS OF PERSONAL CHANGE

Incidents which are here cited as structured in time emerge in interviews as unrelated experiences. Paraplegics do not have a frame of reference for ordering these events into sequences which lead to mastery of the disabled role. Unlike many types of socialization, there were no agents to present the steps involved. Neither was there sufficient contact among paraplegics during this period for them to compare experiences and establish common benchmarks of progress.[4]

From the perspective of the paraplegics, this period of time often lacked meaning: days often seemed wasted and empty and appeared to lead nowhere. It is useful to contrast this experience with socialization in the hospital. Here medical personnel repeatedly listed for paraplegics the sequence of events necessary to achieve physical independence. Accomplishments which are meaningless from a normal person's perspective - sitting balance, wheelchair maneuvering, transfer, standing balance, walking with braces and crutches - were symbolized by hospital staff as indicators of progress. Paraplegics accepted this symbolic definition and thereby derived tremendous self-satisfaction from mastery of steps which otherwise they might have considered inconsequential. Due to definitions of the situation presented by the rehabilitation practitioners and accepted by the paraplegics, days had meaning and were filled with purposive activity. Paraplegics knew the steps to be mastered and could assess their own progress.

PRACTICAL IMPLICATIONS

Uncertainty is one of the most threatening experiences a person must face. Any framework for ordering expectations is perhaps better than none. Paraplegics now leave the hospital with only a vague impression of what to expect in their local communities. It would be naive to assume that this uncertainty could be eliminated; but it would appear that it could be reduced, and rehabilitation might be enhanced if each paraplegic left the hospital with a planned sequence of socialization. Obviously this sequence should be geared to the individual life situation of the patient and to his individual goals. Activities appropriate to the life style of a particular paraplegic could be ordered in terms of their increasing social difficulty, and each type of activity could be given symbolic meaning as an indicator of progress toward rehabilitation.

It is perhaps also important to maintain frequent contact with paraplegics during this period. Events since the last contact could be reviewed and assessed. Events for the coming period could be planned and encouraged. The symbolic meaning of social encounters could be reaffirmed. This procedure divides the middle period of rehabilitation into steps of small increments, reducing somewhat the degree of uncertainty. By presenting paraplegics with a framework for ordering this period of socialization and by guiding them through the steps, rehabilitation practitioners might be able to reduce the length of time between hospital discharge and resumption of training or work roles as well as to increase the number of paraplegics who complete the course. Claims for the merit of this procedure, however, must await experimental evaluation.

The findings presented here also have an important implication for present programs of rehabilitation. Rehabilitation counselors should take into consideration that initial stalling by paraplegics is in no way predictive of job success or failure. Some paraplegics stay at home for two to three years, yet eventually they make good social and work adjustments. This suggests that rehabilitation counselors should not despair if a paraplegic is at first unwilling to resume full-time work. It would seem important to maintain contact with this type of client for several years, giving him repeated opportunities for job training or job placement.

These notions on socialization, while applying to young adult paraplegics, may be equally pertinent to other age groups with other types of disabilities. Almost all physical disabilities are potentially stigmatizing, and successful adjustment to these conditions usually requires learning the skills of stigma management. The findings also may have some bearing on the re-socialization of released prisoners and psychiatric patients as well as on alcoholics, drug addicts, and other types of deviants.

This paper has dealt with only one aspect of paraplegic's socialization career in the community - ordering social encounters by increasing difficulty. As paraplegics' social skills increased, they attempted to enter more difficult social situations. Further research is necessary to specify the skills which are important and to ascertain the manner in which these skills may be learned. Although our present knowledge of resocialization into the community is limited, it would seem worthwhile for the rehabilitation system to consider assuming greater responsibility for this period of adjustment. Research should be encouraged and the potential role of rehabilitation workers should be evaluated to determine whether professional assistance might enhance rehabilitation.

FOOTNOTES

1. Ten of the original 36 did not return to this hospital for their medical care after completing physical retraining. Of the 26 followed here, one died, two were remaining at home on the advice of their lawyer, and one developed a heart condition which prevented his return to work. All of the paraplegics had either worked or had been full-time students prior to injury. The six subjects who did return to work, five men and one woman, are all from middle class families.

2. See Erving Goffman, Stigma: Notes on the Management of Spoiled Identity (Englewood Cliffs, N.J.: Prentice-Hall, 1963), p. 5 for a sociological definition of stigma.

3. Fred Davis, Passage Through Crisis: Polio Victims and Their Families (New York: Bobbs-Merrill, 1963), pp. 147-148 found that polio children on returning home established a close friendship with another child whose status and acceptance in the group was also marginal.

4. Julius A. Roth, Timetables: Structuring the Passage of Time in Hospital Treatment and Other Careers (New York: Bobbs-Merrill, 1963) used the term, "benchmarks of progress" to designate events which occur sequentially in a career and which are indicative of movement toward an end-point.

The author wishes to acknowledge the helpful suggestions of Professors Harvey L. Smith, Marvin B. Sussman, and Donald D. Weir, M.D. who read an earlier version of this paper.

ON THE NEED OF THE SEVERELY HANDICAPPED TO FEEL THAT THEY ARE HUMAN

Prudence A. Sutherland

Miss Sutherland describes herself: "I am twenty-three years old and was born with a severe form of cerebral palsy. I live in a wheelchair, can neither feed nor dress myself, and the majority of people find my speech difficult to understand. I am, however, able to operate an electric typewriter by means of a helmet, from the front of which projects a seven-inch stick with which I hit the keys of the machine. My ability to type makes it possible for me to take one course at a time at Boston University. At present I am taking creative writing, but my main academic interest is philosophy."

The title of this article may shock or even enrage many non-handicapped persons, who would feel that I am brutally overstating the issue. They may think that the severely handicapped person spends too much time meditating on the fact that he is different from those around him, thereby creating barriers against the rest of society. Yet the feelings of being different from everyone else are obvious, deeply conditioned, and ingrained in such a person, and therefore form one of his major concerns. Because he tries to suppress his anxiety at feelings of alienation, he develops rationalizations and sometimes guilt about the very act of introspection and ensuing selfdoubts. But sooner or later his rationalizations and guilt will erupt in a prolonged emotional explosion which is likely to impair his mental health and affect his interpersonal relationships.

Since there is nothing to gain and much to lose from attempts to deny or avoid the problem of being different, let us meet it head on, explore the depth of this sense of isolation, clarify its ramifications, and, finally, take a look at the manner in which I, for one, overcame my feelings of gross difference and lost sense of personal worth. I shall first recount my personal experience with being different and then draw some conclusions which I hope may shed some light on, and ease the life of, other severely handicapped persons.

WELL ADJUSTED PARENTS HELP

I was fortunate to have parents who adjusted exceptionally well to having a severely handicapped daughter; I know this both from first-hand observation and from what professionals in the field of rehabilitation have told me. My mother saw and accepted that, to put it bluntly, my body was practically useless, but she saw too that I was intelligent. She therefore raised me to value the things of the mind above all else and impressed upon me the idea that I was mentally just the same as my brothers and sister. I was encouraged to read, to take joy in nature, and to make happy, bright conversation with the other members of my family. I firmly believe that my mother's approach was the best that can be taken in such a situation. To build on and perfect what is not impaired, and to play down the importance of what is irrevocably damaged, is, I believe, the height of facing human reality.

Despite excellent psychological support and a happy childhood, there was still a touch of uneasiness, the vaguest foreboding shadow, to which I paid little attention when I was very young. I would sometimes wonder why I did not have any friends or if I would ever go to school. My parents were quite frank in discussing my disability and related handicaps with me - it was for them a source of amused pride that I knew all the bio-medical terminology connected with it. My questions were fairly predictable; however, I had many more intimate doubts and unasked questions as to whether I experienced the same physiological sensations as other people (specifically, those experiences involved with bladder and bowel functions). As this was not a socially acceptable subject, and because I had an overwhelming urge to conform to the experiences and customs of those around me, I never asked anyone about this, and so did not relieve my doubts or anxiety.

IMAGINARY FRIENDS, AND REAL

As I grew older and went to high school, the vague foreboding became more of a tangible wall. There was now an immense and very real problem of how to make friends and hold them. It is easy for a young child who wanders around in a kiddy-car to be happy by himself in a world of fantasy; but there comes a time when the reality of his social nature forces itself upon him, and imaginary friends are no longer satisfying.

The difficulty in socialization for severely handicapped persons seems to stem from the fact that the majority of people are so taken aback by the sight of the effects of the handicap that it is impossible for them to get to know the person who exists beneath all this disability - who is, so to speak, hidden behind the radically altered facade. Of course, this reaction comes in varying degrees, but the problem of relating is made more intense when people are embarrassed to ask a person with a speech defect to repeat uncomprehended words. Others are so overcome with pity, shock, or fear that they cannot even bear to relate to, much less associate with, a handicapped person.

Then there is a small minority of people - and they are far easier for me to get along with - who are so desensitized to disabling or handicapping conditions that they almost completely overlook them and are virtually unsympathetic to the real fears and anxieties which the disability or handicap causes. It is fine to have friends like this on the ordinary social level. They not only embrace large parts of your reality, but they also force you to think about subjects completely unrelated to yourself, which is absolutely necessary if you are to become a healthy, outgoing individual.

But it is vitally necessary that the severely handicapped person attempt to form a few really close and binding friendships with people who both understand him as a person and also comprehend the full significance of his disability or handicap, to whom he can easily and frankly vent the turbulent feelings about life situations which he must confront. Without such two-way, free-flowing relationships, one feels horribly shut off and lonely - and life soon become meaningless alone. There are, at least to my present knowledge, very few people who are sufficiently mature, stable, yet sensitive enough to fulfill the need, and who are also willing to be fully honest, not only about their fellow man, but also about themselves. Perhaps these friends are a rarity even for the non-disabled.

IDENTITY SEARCH

By the time I was well into high school I felt my difference to a tremendous degree, and furthermore, I felt that I was radically different not only physically but mentally. My parents and teachers recommended authors and books, and what I read had an added bearing on my feeling that I was mentally different from most other people.

The young, severely handicapped person desperately searches for a normal person who feels the way he does about life. His search is so intensive that he is most apt to identify himself, though the image is vastly distorted, with whomever he is reading about.

Emily Dickinson, the recluse who wrote poetry, is a distant relative of mine. Because I already felt shut off from the world, because certain teachers encouraged me to become a poet, and finally because I began to speak in short, cryptic sentences - the full significance of which no one could have possibly understood - I was dead certain that I was to grow up to be just like Emily Dickinson. I imagined that I had inherited a family curse from her. It sounds laughable, but this line of thought was a most disturbing experience.

The lack of concern of my parents and teachers was in part my fault, for I was ashamed of my intense fear and apprehension concerning my future life, and therefore I did not try to express it often. On the rare occasions when I attempted to describe it to someone - and I always talked about it in a highly oblique manner - my listener would either look blank or else rapidly dismiss the idea as ridiculous. These light dismissals only compounded the problem. This example of a distorted self-image and distorted communications is most characteristic of my high school days.

After a few years I felt a great desire to assert my independence, but it was difficult because of my physical limitations. I began to choose my own books instead of reading only those which were recommended to me. One of the most memorable of these was John Updike's The Centaur. Updike writes very perceptively and honestly of the whole experience of being human - physiological, emotional, intellectual, and spiritual. What a tremendous comfort and revelation he was! The identity and unity that I suddenly felt with the human race after so long a period of isolation has to be experienced to be appreciated. To have been such an inestimable boon, the book had to start its reassurance on the animal level, a reassurance which had hitherto been neglected by those around me.

Another writer who meant a great deal to me for much the same reasons, but also for many others, was Thomas Wolfe. I was swept away by the vitality with which he described human experience.

Yet all these wondrous and newly discovered treasures brought me some worries as well as unhoped-for comfort. I fretted that I must be very queer indeed if I so desperately craved such basic affirmation that I shared something in common with the rest of humanity.

Fortunately, at this point I met some people who enjoyed the same sort of books which had so fired me. As we became acquainted, I found that because they were so honest and frank about the four main aspects of human existence - physiological, emotional, intellectual, and spiritual - I instinctively felt that these people perceived and comprehended both the person I was and the intricate and related ramifications of my handicap. I therefore spoke more freely to them of the fears and anxieties which had been pent up inside me for the major part of my life; and just as they had been fully open about the contingencies of universal human existence, so now they were most receptive to and accepting of (even shedding light on) the worries that appeared peculiar to being severely handicapped. Although our conversations covered a vast range of subjects, the full ramifications of my disability were so easily perceived and accepted by these people that none of us hesitated to discuss its consequences. I had finally formed with these non-disabled people some truly close friendships, which are the keystones of meaningful social living and without which all else fails and is scattered.

PRIVACY, NOT LONELINESS

Such experiences of being different which I have just related raise two important questions. First, how can we make the severely handicapped person feel that he shares the same basic experiences of existence with all humanity, and at the same time maintain his right to privacy? The reassurance of humanness must cover the physiological level as well as the others. This reassurance cuts through one's sense of personal isolation, which is even more strongly felt when severe disability renders one so different. When such isolation has been erased, one can begin to identify with the rest of mankind.

There is an intense satisfaction in some biological privacy, which has nothing to do with the conditioned shame fostered by a prudish society. Man needs to be entirely alone for certain periods in order to grow in self-knowledge and to get away from the pressures of his environment, and what better time is there for his self-renewal than when he is fully relaxed and aware of his whole person? To deprive anyone of any privacy which he values is to deprive him of one of the essential human dignities. Yet man's right to privacy must be balanced against the deep loneliness which results from doubts as to whether he has the same sensations as do all others. One happy solution to this rather touchy problem lies in books which deal with the entire range of human experience, with simplicity and unreservedness, for books may be read in private but may be shared with friends.

This brings us to the second question: How does one suggest books to a severely handicapped young person without his developing the "Emily Dickinson syndrome," as it were? The answer is simple, but terribly difficult to put into practice: Find out what the child himself is really thinking about, what his real concerns are, and what puzzles and really worries him. Obviously the process takes infinite patience, maturity, and time, for the child may be fearful, anxious, and reticent, and the effort has to be doubled if the child has a major speech defect that inhibits communication. Here again, the child's right to privacy must be respected, and it is a bad idea to push too hard. Respectful listening is also warranted when the child finally comes forth with an expression of his innermost feelings and needs. Make sure you understand what he means; otherwise the whole process is wasted. And then whatever you do, don't tell him his ideas are wrong or ridiculous; they do not seem so to him! Instead, help him to be frank and unashamed in all the aspects of being human.

Once you have discovered what is on the child's mind, tell him not only about your own experiences but also about any books that will speak to him personally, that will give him the experiences of others, and that will clarify his ideas and perhaps share some of his feelings. There are those who see the greatest value of literature as its capacity to broaden one's horizons; I am all for expanding one's viewpoint, but solutions to deep personal problems can never be alleviated through suppression and avoidance, and their resolution is a prerequisite to the larger shared view of reality itself. I think the best books both offer a profile of the outer world and illuminate one's inner world.

The skillful recommendation of what to read requires a familiarity with numerous forms of literature and an alert and sensitive mind to put that familiarity to use. After the child has read a book, be sure to listen, just as attentively as before, to his reaction to it. Thus you will gain a clearer understanding of the direction his thought has taken. Books should be regarded as vehicles of communicating reality rather than as mere licenses to "join the fellowship of educated men."

I hope I have presented a few valid guidelines by which the severely handicapped but sensitive person and those around him can come to grips with and eventually overcome his deeprooted fears and anxiety about being different, and partake of a larger, mutually shared reality, to the benefit of all.

CHAPTER IX

EMOTIONAL DISTURBANCE

Introduction

by Norman W. Garlie, Ph. D.

One of the "labels" most widely used and abused in our society today is the label of emotional disturbance. There has been a tendency to label everyone who is different as having an emotional problem. Unfortunately, this has tended to make it difficult to identify those children with emotional problems who are in need of help. It has also caused many people to be mislabeled with a "tag" that has remained with them throughout their lives. The old saying "Sticks and stones will break my bones, but names will never hurt me", just does not hold true in this area.

Fortunately, there has been a recent trend toward the preventive approach in dealing with the area of emotional disturbance. There has been more emphasis placed on mental health rather than on mental illness. Furthermore, there has been movement away from the "medical model," i.e., mental illness as a disease process; toward a "psycho-educational model", i.e., emotional problems are learned behaviors and therefore they can be unlearned.

As these new ideas have come to be accepted in educational circles, programs for the education of children and adults with emotional problems, have developed. Perhaps, more important educational leaders are starting to develop preventative mental health approaches in the schools. This more than any previous *approach, should have far reaching effects on the emotional well being of our society.*

The following articles were selected, mainly with the teacher in mind. They will be of interest to a wider audience but should be of a particular help to the classroom teacher and the school administrator.

The first article is a historical review of the area by Leo Kanner. This article puts into perspective the topic of emotional disturbance while tracing it from early times up to the present. He also recommends directions we should take in the future.

Walter Barbe's article is intended to help the reader understand ways of identifying children with emotional problems. He discusses various types of behavior and gives guidelines as to when this behavior may be indicative of a disturbance. He summarized by giving the reader concrete suggestions on what should be done after identifying children with problems.

Hewett's article spells out in detail the competencies that are needed for the teacher working with emotionally disturbed children. Many of the questions usually raised, by teachers out in the field, are answered in this article.

The last article, by William Rhodes, gives you various curriculum approaches that have been tested out in practical settings. This article should encourage further reading in the area and, perhaps, point out some of the ideas that you have been using are used by others and do work!

Obviously, a chapter of this type can only present a few ideas which may be of value to you. It is hoped that these art-

icles will challenge you to read and investigate further into the area of emotional disturbance. To encourage this behavior a list of selected readings is included at the end of the chapter. A list of discussion questions is also included.

EMOTIONALLY DISTURBED CHILDREN:
A HISTORICAL REVIEW

by:

Leo Kanner

It is customary to begin a historical account with the search for the earliest observations, ideas, and practices pertaining to the topic under consideration. Ancient and medieval sources are consulted; discovered references are interpreted in the light of the over-all culture of the times and locale; eventually, an evolutionary pattern emerges which links the gradual steps from primitive origins to the facts and theories available when the quest is undertaken.

Similar efforts concerned with emotional disorders of children lead to the amazing disclosure of the total absence of an allusion, however casual, before the eighteenth century. Folklore, which seizes upon every conceivable aspect of human life, is peculiarly silent. Theolgic, medical, and fictional writings have nothing to say. This does not warrant the assumption that infantile emotions always ran a smooth course in the past and that the occurrence of their disturbances is a relatively recent phenomenon. The truth is that, aside from occasional pious pleas for nondescript philanthropy, our ancestral lawgivers, physicians, and philosophers seem to have been indifferent toward the afflicted among many categories of the young and, for that matter, of the grown-ups as well. It was not until the decades immediately before and after the French and American revolutions that the new doctrine of the rights of the individual engendered an unprecedented spurt of humanitarian reforms. Vigorous spokesmen arose for the active alleviation of the plight of the slaves, the prison inmates, the insane, the blind, the deaf, and the mental defectives. For the first time, handicapped children were seen and heard. Young enthusiasts, mostly men in their twenties, undeterred by the skepticism of their renowned mentors, began to experiment with remedial and educational methods.

There was still no comprehension of the kind of children's difficulties which manifested themselves in disorganized feeling, thinking, and acting. Here and there sporadic sketches made their appearance, mostly with the implication of inherent evil. A few examples may suffice to give the flavor of these reports from the pens of outstanding alienists. I should like to procede them with the story of little Emerentia, as chronicled in a clergyman's diary which is cited in the masterful autobiographic novel, Der grüne Heinrich by Gottfried Keller(11), in whose native village the incident had taken place in 1713.

This 7-year old girl, the offspring of an aristrocratic family, whose father remarried after an unhappy first matrimony, offended her "noble and god-fearing" stepmother by her peculiar behavior. Worst of all, she would not join in the prayers and was panic-stricken when taken to the black-robed preacher in the dark and gloomy chapel. She avoided contact with people by hiding in closets or running away from home. The local physician had nothing to offer beyond declaring that she might be insane. She was placed in the custody of a minister known for his rigid orthodoxy. The minister, who saw in her ways the machinations of a "baneful and infernal" power, used a number of would-be therapeutic devices. He laid her on a bench and beat her with a cat-o'nine-tails. He locked her in a dark pantry. He subjected her to a period of starvation. He clothed her in a frock of burlap. Under these circumstances, the child did not last long. She died after a few months, and everbody felt relieved. The minister was amply rewarded for his efforts by Emerentia's parents.

Such was the general milieu in which the alienists of those days came upon specimens of childhood psychosis. The great Esquirol (7, pp. 384-385) reported in 1838 the cases of three "little homicidal monomaniacs." Of an 11-year-old girl who pushed two infants into a well he had nothing more to say than that she "was known for her evil habits." An 8-year-old girl who threatened to kill her stepmother and her brother was returned to her grandparents who had violently disapproved of her father's remarriage. A 7 1/2-year-old girl who had been tossed about among relatives refused to play, had temper tantrums, masturbated excessively, and expressed regret that her mother did not die; the neighbors, to teach her a lesson, put flour into a glass of wine, told her it was arsenic, and forced her to swallow it. On psychiatric advice, she was sent to a convent, where she promptly developed pediculosis. Eventually, she was apprenticed to a jewel cutter and was said to be submissive and to attend church services on Sundays.

In 1841, Descuret (4) told of a boy who lived with a nurse during the first two years of his life. When he was taken to his home, he grew pale, sad, and morose, refused to eat, and did not respond to his parents. The usual toys and diversions had no effect. On medical advice, the nurse was called back and, in the father's words, "from that moment on he began to live again." Eventually, he was separated from the nurse, first for a few hours, then for a whole day, then for a week, until finally the child was accustomed to her absence.

This last example indicates an emerging desire to look for possible explanations of deviant child behavior on other than pseudotheologic and pseudomoralistic grounds.

Around the middle of the nineteenth century, a growing number of such anecdotal bits were published, and a few psychiatrists were no longer satisfied with the mere mechanical recording of observed or quoted instances. In 1867, Maudsley included in his Physiology and Pathology of Mind a 34-page chapter on "Insanity of Early Life." In it, he tried to correlate symptomatology with the developmental status at the time of onset and suggested a classification of infantile psychoses. There was objection on the part of those who persisted in denying the existance of mental illness in children. In the 1880 revision of his book, Maudsley (16) felt compelled to counter such criticism with an introductory paragraph, which said, somewhat apologetically:

> How unnatural! is an exclamation of pained surprise which some of the more striking instances of insanity in young children are apt to provoke. However, to call a thing unnatural is not to take it out of the domain of natural law, notwithstanding that, when it has been so designated, it is sometimes thought that no more needs to be said. Anomalies, when rightly studied, yield rare instruction; they witness and attract attention to the operation of hidden laws or of known laws under new and unknown conditions; and so set the inquirer on new and fruitful paths of research. For this reason it will not be amiss to occupy a separate chapter with a consideration of the abnormal phenomena of mental derangement in children (p. 259).

In the last two decades of the nineteenth century, courageous attempts were made to collect and organize the existing material in monographs on "psychic disorders," "mental diseases," or "insanity" of children. These were the texts of Emminghaus (6) in Germany, Moreau de Tours (17) and Manheimer (15) in France, and Ireland (9) in Great Britain. There was a tendency toward fatalism which saw in the disorders the irreversible results of heredity, degeneracy, masturbation, overwork, religious preoccupation, intestinal parasites, or sudden changes of temperature.

Thus, around 1900, there was an assortment of publications, ranging all the way from single case reports to elaborate texts and announcing to an astonished world that children were known to display psychotic phenomena.

It was the year 1900 in which Ellen Key (12), the famous Swedish sociologist, made her much-quoted prophetic announcement that the twentieth century was destined to be "the century of the child." It is indeed remarkable that in the next few years many efforts converged on the interest in the doings and experiences of infants and children. The diaries of Preyer, Darwin, Pestalozzi, Tiedemann, and other writers, expanded by Stanley Hall's questionnairs, had paved the way for the new science of developmental psychology and the monumental work of Binet, whose first draft of the psychometric scale was made public in 1905. This was the year in which Freud, on the basis of elicited adult patients' reminiscences, gave literary form to his theory of infantile sexuality. Three years later, Clifford Beers introduced the idea of the prevention of mental illness, focusing on the need to intercept behavioral deviations at the time of their earliest appearance. The establishment of juvenile courts, inaugurated in 1899 in Denver and in Chicago led eventually to Healy's contributions in the teens of this century. Educators joined in by building into the school systems special instructional facilities for pupils with visual, auditory, neuro-orthopedic, and intellectual handicaps.

Yet it was not until the 1930's that consistent attempts were made to study children with sever emotional disturbances from the point of view of diagnosis, etiology, theraphy and prognosis. When the change did occur, it was centered around the concept of childhood schizophrenia. By that time, general agreement had been reached that children were not altogether immune against the illness described by Kraepelin as dementia praecox and referred to by Bleuler as the group of the schizophrenias. Ziehen (23) and Homburger (8) had given in their textbooks (both in 1926) ample space to a discussion of its incidence in preadolescence and adolescence. De Sanctis (3), at about the same time, had suggested the term "dementia praecocissima" for an assortment of marked disturbances appearing in preschool age. Increasing awareness of the looseness with which childhood schizophrenia was diagnosed or failed to be diagnosed caused Potter (18) in 1933 to delineate the concept so that there might be a consensus with regard to the nosologic assignment of any individual child. In the framework of this and similar definitions, the next step consisted of the search for a clear demarcation of existing variations in onset, symptoms, and course. Ssucharewa (21) in Russia, Lutz (13) in Switzerland, and Despert (5) in this country distinguished between cases with acute and insidious onset, with the implication that the peculiarities of the beginning determined the phenomenology and the progress of the illness.

In the 1940's a period of controversy and confusion was inaugurated because of the parallel advocacy of two antithetical trends. One the one hand, there was a tendency to revert to pre-Kraepelinian indefiniteness. Beata Rank (19) introduced the notion of the "atypical child," with intended disregard of any distinctions between childhood psychosis, mental defect, and any other form of "severe disturbances of early development." Problems of mother-child relationship were declared to be a common causative denominator. Szurek proclaimed categorically: "We are beginning to consider it clinically fruitless, and even unnecessary, to draw any sharp dividing lines between a condition that one could consider psychoneurotic and another that one could call psychosis, autism, atypical development, or schizophrenia" (22, p. 522).

On the other hand, there was a decided disinclination to house an assortment of heterogeneous clinical entities under one supposedly common etiologic roof. Kanner (10), in 1943, outlined the syndrome of early infantile autism. Mahler (14), in 1949, described a form which she named symbiotic infantile psychosis. In the same year, Bergman and Escalona (2) called attention to what they called children with unusual sensitivity to sensory stimulation. In 1954, Robinson and Vitale (2) added the group of children with circumscribed interest patterns. Bender (1), seeing the origin of childhood schizophrenia in a maturation lag at the embryonic level, subdivided the condition into three clinical types: (a) the pseudodefective or autistic type: (b) the pseudoneurotic or phobic, obsessive, compulsive, hypochondriac type; (c) the pseudopsychopathic or paranoid, acting-out, agressive, antisocial type.

It is strange, indeed, that a historical review of emotional disturbances of children should occupy itself predominantly, or almost exclusively, with psychoses and, more specifically, with schizophrenia. It is equally strange that, seek as one may, it is impossible to find anywhere a definition of the term "emotionally disturbed children" which had somehow crept into the literature some 30 years ago and has since then been used widely, sometimes as a generality with no terminologic boundaries whatever and sometimes with reference to certain psychotic and near-psychotic conditions. This is extremely important in the consideration and evaluation of past, ongoing, and planned research. It can be said that these studies do exclude such emotional disorders , as occasional temper tantrums or night terrors of otherwise well-adjusted children; chronicity is apparently a paramount requirement. Also left out are emotional problems associated with, or secondary to, inherent mental deficiency or demonstrable organ pathology. But this still leaves a wide variety of heterogeneous conditions which, if thrown together indiscriminately, impart no greater meaning to a study than did the sixteenth century treatises on the fevers or the nineteenth century studies of the blood pressure of "the insane" or of the heredity of "feeblemindedness." It may perhaps be legitimate to link them together from the standpoint of practical epidemiology and the improvement of public health facilities but, beyond this, it would hardly do to claim scientific validity for any research which sets out to look for unitary features in disparate conditions.

A historical survey teaches us that progress has always consisted of a breaking down of diffuse generic concepts into specific categories. We no longer speculate about fevers generically; bacteriology knows of totally different varieties of febrile illness. We no longer speak about insanity generically; we recognize a variety of psychotic reaction types. We no longer speak about feeblemindedness generically; we know that there is a vast difference between mongolism, microcephaly, and phenylketonuria; it would not occur to anyone to lump them together in any meaningful investigation. I believe that the time has come to acknowledge the heterogeneity of the many conditions comprised under the generic term, "emotionally disturbed children." We shall then be in a position to study each of these varieties with true precision. A symposium on the use of the term in scientific publications would, at this juncture, be a major contribution to clarity and mutual understanding.

REFERENCES

1. Bender, L. Current research in childhood schizophrenia. Amer. J. Psychiat., 1954, 110, 855-856
2. Bergman, P., & Escalona, S. Unusual sensitivities in very young children. Psychoanal. Stud. Child, 1949, 3-4, 333-352
3. DeSanctis, S. Neuropsichiatria infantile. Rome: Stock, 1925
4. Descuret, J. B. F. Médecine des passions. Paris: Béchet et Labé, 1841.
5. Despert, J. L. Schizophrenia in children. Psychiat. Quart., 1938, 12, 366-371.
6. Emminghaus, H. Die psychischen Storügen des Kindesalters. Tübingen: Laupp, 1887
7. Esquirol, J. E. D. Maladies mentales. Vol. I Paris: Baillère, 1838.
8. Homburger, A. Vorlesungen über die Psychopathologic des Kindersalters. Berlin: Springer, 1926.
9. Ireland, W. W. The Mental Affections of Children, Blakiston, 1898.
10. Kanner, L. Problems of nosology and psychodynamics of early infantile autism. Amer. J. Orthopsychiat., 1949, 19, 416-426.
11. Keller, G. Der grüne Heinrich, Vol. 1. Munich: Deutsch-Meister-Verlag, 1921
12. Key, E. The Century of the Child (English Rev.) Putnam, 1909.

13. Lutz, J. Über die Schizophrenie im Kindersalter. Zurich: Füssli, 1937.

14. Mahler, M. S. On Child psychosis and schizophrenia. Psychoanal. Stud. Child, 1952, 7, 286-305.

15. Manheimer, M. Les troubles mentaux de l'enfance. Paris: Société d'Éditions Scientifiques, 1899.

16. Maudsley, H. The Pathology of the Mind. Appleton, 1880

17. Moreau De Tours, P. La folie chez les enfants. Paris: Baillere, 1888.

18. Potter, H. W. Schizophrenia in children. Amer. J. Psychiat., 1933, 89, 1253-1270

19. Rank, B. Adaptation of the psychoanalytic techniques for the treatment of young children with atypical development. Amer. J. Orthopsychiat., 1949, 19, 130-139

20. Robinson, F. J. & Vitale, L. J. Children with circumscribed interest patterns. Amer. J. Orthopsychiat, 1954, 24 755-766.

21. Ssucharewa, G. Über den Verlauf der Schizophrenien im Kindersalter. Ztsch. f. d. ges. Neurol. & Psychiat., 1932, 142, 309-321.

22. Szurek, S. A. Psychotic episodes and psychic maldevelopment. Amer J.Orthopsychiat., 1956, 26, 519-543.

23. Ziehen, T. Die Geisteskrankheiten des Kindesalters. Berlin: Reuther & Reinhard, 1926.

LOCATING CHILDREN WITH
EMOTIONAL PROBLEMS

by:

Walter B. Barbe

Classroom teachers are constantly being told that they must be aware of the emotional problems of their pupils, but how can the teacher know which children have emotional problems? If every child who misbehaves is labeled maladjusted, there will probably be few children who do not carry such a label. Many of the children who never misbehave are probably the very ones for whom the label would properly apply.

Just as a child has curly hair, blue eyes, and a fair complexion, so also may the child's emotional make-up be described. The emotional make-up is certainly not as obvious, but it is present, nevertheless, and perhaps far more important.

Various terms are used to describe a child's adjustments. The two terms, "personality" and "emotional adjustment," are synonymous. Generally speaking, the emotional make-up of the child is concerned with how well he has adjusted to life situations both at home and at school. It must be recognized that every child will have different situations to which he must adjust. When the child is unable to adjust to any particular one of these situations, and reacts to it by either becoming aggressive or withdrawn in other situations, he is then said to have an emotional problem.

The teacher is in the best position to identify children with emotional problems. He is not only with the child a large part of each day, but he also is able to observe the child more objectively than the parent. Also, the teacher has a group of children of approximately the same age with whom he can compare each child. This is, in a sense, a norm by which he may judge normal behavior and normal adjustment.

If the teacher is to locate emotional problems by means of observation, he should know specifically what problems for which to look. Any type of observed behavior, to be considered important, should be consistent. Merely the occurance of one outburst from Johnny is not sufficient reason to label him socially maladjusted. The children in the classroom quickly forget the isolated instances of misbehavior, for they accept the fact that an occasional outlet for our emotions is essential to good mental health. The most important aspect, therefore, is that the behavior be consistent, and that it is not merely a child's way of learning to adjust by trial and error.

There are two distinct types of behavior which may be indicative of emotional maladjustments in children. Neither is more or less important than the other. For very obvious reasons, the outward type of behavior, aggressiveness, will attract more attention than the retiring type of behavior. In the classroom where thirty-five to forty children must be taken care of, the child who sits back and is no trouble may be considered a model child. Teachers are coming to realize that this child, just as the agressive child, also may be having emotional problems. While rebellion is not to be encouraged, it is only a natural stage in the development of all children to either try their ability at being important or to defy authority at least occasionally. When too many children have such natural urges at one time, the teacher feels that he has had a most trying day. But if the children were not to express their freedom occasionally, it would be a very dull existence, much more difficult than the way things are at present.

WHAT IS AGRESSIVE BEHAVIOR?

In attempting to determine the extent of aggressive behavior which should be considered serious, a teacher can ask the following questions about a child.

1. Does he consistently lie, even when the truth would sometimes do just as well?
2. Does he cheat even when he doesn't need to merely for the sake of cheating?
3. Does he steal, or report things of his own to be stolen when they are not?
4. Is he intentionally destructive?
5. Is he cruel?
6. Does he consistently bully younger children?
7. In his relations with adults, is he arrogant and defiant?
8. Does he frequently have temper tantrums?

An affirmative answer to one of these does not necessarily imply that the child has an emotional problem, but it is indication that he is not satisfactorily adjusting to the group. An affirmative answer to several of these indicates a child who needs help.

All lying is not an indication of emotional maladjustment. But it may be a symptom if the child believes that it is better not to tell the truth than to face reality. Cheating and stealing may be attempts to compensate for inability or inequality in other ways. Recognized early, these are not major problems and the classroom teacher can adequately provide for this child. If it is a pattern which is once started and persists throughout school, it becomes a serious problem. Destructiveness is not a natural trait in children. They may be careless, but intentionally destroying property, whether it belongs to them or not, is an indication of aggressiveness which needs to be recognized. Merely telling the child to stop or punishing him will do nothing to correct a basically serious problem.

Even though it is sometimes said that children are cruel, they are not unless we, as adults, make them believe that this is an acceptable method of adjustment. Sometimes a child may be cruel merely because he does not understand. When told that his actions are unkind and cruel, he will not persist in them. Bullying, another form of cruelty directed at another child, may be the insecure child's way of attempting to gain status in the eyes of others, or it may be the child's way of getting even for treatment which he receives from his parents, or from other older brothers and sisters.

Arrogance and defiance are the child's ways of saying that he has had too much freedom to give it up now. The spoiled, pampered child may use such actions when he suddenly realizes that the teacher is not going to allow him to have his way all of the time. As disagreeable as this child may appear to be, it is not his fault that he cannot adjust. He needs understanding in order to realize that the rights of others must be respected. The parents must cooperate in any attempt to help this child. All of the good intentions behind pampering can result in only one thing - an unhappy child, unable to understand why he is not always given what he has come to believe are his rights.

Temper tantrums, if they occur frequently, are serious indications of emotional maladjustment. Punishment should not be used to stop them. The teacher should be firm with the child, but allow him a position in the classroom in which he can feel secure.

RETIRING BEHAVIOR IS DANGEROUS

The child who is aggressive is more likely to be recognized as a problem by the teacher than the child who is retiring. More and more teachers realize that the retiring child, while he certainly is not a problem in the sense that he causes trouble in the class, may be a very serious emotional problem. In attempting to determine the extent of retiring behavior which indicates maladjustment a teacher may ask the following questions about a child:

1. Is he overly sensitive, so that he cries frequently?
2. Does he daydream a great deal and seem to prefer his daydreams to activities with other children?
3. Does he try extremely hard to please, even at the expense of losing friends?
4. Is he easily frightened and does he have unusual fears?
5. Is he overly selfish?
6. Does he make up stories to enchace his own position?

Of course, children frequently cry in the first few weeks of school. This must be recognized as normal, for having to leave the protection of a mother is quite a difficult adjustment for some children to make. If the crying persists, however, steps should be taken to remedy whatever is causing it. It may be that the child is too immature to be away from his mother and before he decides that he completely hates school, it would be better to send him home for another year. Next year, he would be better adapted emotionally to cope with the trials of everyday school problems. It is more important to observe how easily the child gets over his crying than the fact that the child cries occasionally. While it should certainly not be encouraged, crying is an emotional release which some children, particularly girls, may have adopted.

The child who daydreams a great deal and prefers his daydreams to activities with other children is trying to escape from a situation which he finds unpleasant. While such children are certainly no problem in the sense that they disrupt the class, they are serious problems within themselves. Merely forcing the child to participate is no solution and may make the situation worse.

While it is extremely difficult not to like the child who works hard to gain the favor of the teacher, if he does so even at the expense of losing friends, it is a behavior problem. Complete rejection by the teacher is not the answer, but neither is encouragement of the behavior. Providing the child satisfaction in ways more acceptable to the group is one way to divert this desire to please into normal channels.

The child who is easily frightened is insecure. He knows that he fears something, but doesn't know what. Making up fears of unusual things is a way of giving form to his fears. The teacher should not encourage these fears, but neither should he punish the child because of them. As unreasonable as they may sound, they are very real to the child.

Making up stories to enhance one's own position is a natural reaction for an insecure child.

PHYSICAL FACTORS TO BE NOTED

Along with these less tangible factors which the teacher may look for in identifying emotional problems, there are definite physical factors which may be observed. Only one of these might not be an indication of an emotional problem, but it should lead the teacher to ask some of the questions previously listed.

1. Does the child bite his nails?
2. Does the child have any face twitching (known as tics)?
3. Does the child constantly pull or twist his hair, chew on his clothing, or pick or scratch his body?
4. Does he have a weak, high-pitched, or strained voice or is he constantly clearing his throat?
5. Is he conscious of excessive overweight or underweight?
6. Is he conscious of extreme tallness or shortness?

While certainly not all nail biting is an indication of an emotional maladjustment, it is nevertheless a very important indicication. Frequently, it is only a habit, even though there may have been some emotional stress which originally caused it.

Facial twitchings are important symptoms of emotional maladjustment. The teacher is in no position to try to correct this difficulty and should not hesitate to refer the child for psychiatric help.

Pulling or twisting hair, chewing on clothing, and picking and scratching are all signs of nervousness. It is not natural for a young child to be nervous. An effort should be made to remove the child from situations in which he is nervous.

The child's voice is frequently a better indication of his emotional adjustment than any other outward sign. The strained, high-pitched voice reflects extreme tension. Constantly clearing one's throat is also a sign of this tension.

Excessive overweight or underweight, as well as extreme tallness or shortness, necessitate emotional adjustments quite different from those of the average pupil. If the child is unable to make these adjustments, the teacher should help him make them.

WHAT CAN THE TEACHER DO?

It is not likely that the teacher will find a child who is a serious emotional problem if only one affirmative answer is given to the questions which have been asked. In most instances, there will be a number of indications. It is the teacher's responsibility to locate emotional problems early in order that steps may be taken to help the child. Following these steps may aid the teacher in doing this. The next logical question which will be asked is, "What can I do about a child who has been identified as having emotional problems?"

Actually there is a great deal that the teacher can do for this child. Understanding the child is of the greatest importance. Providing the child with a happy school situation in which he can feel secure and in which he can meet success frequently is of the greatest importance. Home visitations and conferences with parents and former teachers frequently will shed much light on the child's problem. The teacher must realize, however, that treatment of serious emotional problems does not lie within his realm. If the school has a psychologist, the child should be referred to him. If not, the parents should be encouraged to take the child to a child guidance center. If the services of these are not available, the child should visit a private psychologist or psychiatrist. If the parents are unable to afford this, almost any of the charitable organizations will give financial assistance.

Recognizing that the child has an emotional problem is a major first step. Determining the reason for the problem is a beneficial next step. Referral in those cases which seem to be of a serious nature is the logical third step.

A HIERARCHY OF COMPETENCIES FOR TEACHERS OF EMOTIONALLY HANDICAPPED CHILDREN

by:

Frank M. Hewett

Tender without being sentimental, tough but not callous, sensitive but not irritable, possessed by conviction, profoundly aware without loss of spontaneithy, trusting in the intuitive humane responsiveness of one's self and one's colleagues, and self-actualized. While this description may seem an excerpt from the cannonization of a saint, in actuality it is a statement of desirable characteristics for teachers of emotionally handicapped children compiled from writings of Rabinow (1955); MacKie, Kvaraceus, and Williams (1957); and Haring (1962). The implication is that teachers must possess a personal giftedness and an educational artistry in the tradition of Maria Montessori, Grace Fernald, and August Aichhorn in order to be effective with disturbed children.

Elsewhere, Rabinow (1960) has stated that "the artistry of the teacher is more significant than the trainable competencies" (p.293). Such a statement may be valid, but it is of questionable usefulness if recruitment and training of teachers are to keep pace with the growing demand for special classes for disturbed children.

Mackie et al. (1957) have attempted to be more specific and objective in delineating necessary qualities for teachers of the socially and emotionally maladjusted. They had teachers of such children rank 88 competencies in order of importance, from understanding of techniques adaptable to the classroom situation for relieving tensions and promoting good mental health (rated number 1) to knowledge of the cultural patterns of other societies (rated number 88). Although this is an impressive and ambitious undertaking, the reader may not feel well informed after completing the study, due to the large number of competencies ranked and the wide scope of educational skills covered.

In an effort to be more concise while retaining the operational flavor of Mackie's work and reflecting some of the dynamic personal qualities suggested by Rabinow and others, the staff of the Neuropsychiatric Institute (NPI) School at the University of California, Los Angeles, has developed a hierarchy of competencies for the teacher of the emotionally handicapped. These competencies were selected after four years of offering a one semester training course to public-school teachers in a psychiatric hospital school setting. Many of these competencies have been stated elsewhere (Mackie et al., 1957: Lord, 1950: and Stulken, 1950) as desirable for all teachers of exceptional children. The purpose of this paper is to emphasize their order of importance and to attempt to define them objectively.

The hierarchy of teacher competencies roughly parallels a hierarchy of educational tasks for children with learning disorders developed earlier in the NPI School (Hewett, 1964). The hierarchy presupposes that teachers entering the field of education of the emotionally handicapped will possess the dedication and vitality necessary for all individuals who become effective teachers of exceptional children. In order of importance (from most basic to highest level), the hierarchy emphasizes that the teacher of the emotionally handicapped child should be objective, flexible, structured, resourceful, a social reinforcer, a curriculum expert, and an intellectual model.

OBJECTIVITY

The most important single requirement for the effective teacher of the emotionally handicapped is to be objective. He must be knowledgeable in the field of normal and deviant psychosocial development and familiar with professional literature relating to special education, particularly with the emotionally handicapped. More important than familiarity with theory and experimental findings, however, is the development of an objective, questioning, educational attitude toward teaching. It is not enough to rely on the cafeteria approach to special education, using this technique because it seems appropriate or that material because of its previous success. The teacher should make an objective assessment of why particular approaches are successes or failures and communicate his findings to others, particularily the student teacher. Educational artists often prefer to radiate inspiration and personal example, rather than to attempt to quantify success and failures.

Also within the framework of an objective, educational approach is the need to relate professionally to other disciplines such as psychiatry, clinical psychology, and social work. The teacher must strive to define educational goals and practices so that they are understandable to members of these disciplines and relate to the broadest treatment plans for the child, whether in a hospital or day school setting.

Mackie et al. state that the teacher of the emotionally handicapped child must be emotionally stable and not "need to be loved by all, or given to achieving vicarious satisfaction through the antisocial feelings and behavior of others" (p. 17). Rabinow (1960) has described the "crackpots" who are drawn to the field and whose own needs are met through involvement with disturbed children. At the NPI School, some 10 percent of the teachers who enroll in the training course appear too unstable to work successfully with such children. A full discussion of this problem, including whether or not mildly neurotic teachers actually are more effective with disturbed students, is beyond the scope of this paper. Suffice it to say that the objective teacher has some recognition of his own emotional needs and attempts to separate these from the needs of his students.

FLEXIBILITY

Closely related to an objective approach to the education of the emotionally handicapped child is the need to be flexible. Perhaps in no other area of education is the teacher faced with such variability among students. What promotes a student's success today may result in a classroom catastrophe tomorrow, depending on the shifting needs and interests of the child. The flexible teacher is comfortable operating in such a state of flux. Continual assessment of students' available learning capacities and subsequent modification of educational goals are essential. As in all special education programs, success experience for the student is given primary focus. The flexible teacher communicates complete acceptance of all students as individuals, regardless of their manifest intellectual, perceptual, motor, and social skill, or current emotional states.

STRUCTURE

While maintaining a flexible approach, the teacher of the emotionally handicapped child must be structured and must set consistent and reasonable behavioral and educational limits. if these two competencies seem incompatible, they are not. Some aspects of classroom routine and expectation will change on a day to day, minute to minute basis; but there must be a clearly defined substructure operating at all times. At the NPI School, allowance is made for the changing needs and interests of the children as long as they successfully fulfill the role of a student. This role is carefully defined for the child upon admission to class, and it assumes the ability to tolerate some restriction of space, noise level, and activity and to respect the working rights of others. When a child is too upset to function as a student, he is removed from the classroom immediately. Although school is taken away, schooling is not. The latter is provided on a one to one basis until the child can resume the student role.

In addition to maintaining predictable behavioral limits, the teacher must carefully structure student assignments. Units of work which are well defined and realistically attainable, rather than vague and open ended, are preferable. Immediate feedback is also an important adjunct to the structured approach. Assignments should be corrected at once and errors discussed. Daily behavioral rating scales have also been requested by several NPI School students as a means of providing feedback regarding their current class standing.

RESOURCEFULNESS

The objective, flexible, and structured teacher who is also resourceful is in an excellent position to teach the emotionally handicapped child. The resourceful teacher provides classroom experiences which emphasize maximum reality testing and multisensory stimulation. He also selects materials and activities that are meaningful and impactful and which draw the child into an exploratory relationship with his environment. Chronologically appropriate curriculum assignments are not utilized at the expense of student motivation and satisfaction. Not only must the teacher create entirely unique lessons for individual students, but he must be prepared to alter or replace these at a moment's notice. The resourceful teacher also assesses sensory and perceptual motor needs of the child and selects learning activities which provide development in these areas and promote readiness for more formal curriculum experience.

SOCIAL REINFORCEMENT

In all contact with the emotionally handicapped child, the value of the teacher as a social reinforcer cannot be overemphasized. Most such children display seriously disturbed relationships with others, particularly with adults. At all times it is important to understand how the child perceives the teacher and what opportunities and limitations exist in the teacher-student relationship. Having assessed the child's capacity for relating to an adult authority figure, the teacher can use positive social reinforcement, such as praise and individual attention, in an appropriate manner to motivate and control the student. Negative reinforcements are also essential in maintaining a structured working relationship. For some children, a stern look, a shaking of the head, or a restraining touch may be meaningful and effective. For others, allowing inappropriate behavior to extinguish by ignoring it may be the most successful approach. Selecting successful reinforcement techniques and constantly evaluating their effectiveness are important tasks for the teacher who, as an adult model, can often aid in reshaping the child's social attitudes and behavior. At times, peer groupings may also be used to promote positive social experiences for the child.

CURRICULUM EXPERTISE

Despite the fact that the competencies previously discussed tend to emphasize the teacher's clinical judgment and psychosocial awareness, skill as a curriculum expert cannot be overlooked. Regardless of the psychological sophistication of the teacher of the disturbed, his ultimate success will depend on a sound basic understanding of educational practices and techniques. As a result, in the selection of the best candidate for a teacher of the disturbed, the individual with an advanced psychology degree but no training in education is often less promising than the stable, flexible, and resourceful classroom teacher who is thoroughly knowledgeable in basic curriculum methods and materials. During the four years of teacher training experience in the NPI School, this has generally been the rule. There is a point in the special education program for most emotionally handicapped children when the primary contribution of the teacher is good teaching. The ability to set realistic academic goals in keeping with the student's intellectual and achievement levels and to institute appropriate developmental and remedial procedures in reading, arithmetic, and other basic skills is an essential competency.

INTELLECTUAL MODEL

Finally, the teacher must be competent in functioning as an intellectual model with those emotionally handicapped students whose problems do not interfere with intellectual functioning and who are often best helped by an educational program of enrichment.

Development of good study habits, pursuit of academic work in considerable depth, frequent discussion with the teacher on issues of importance to the student, and involvement in special projects of research may be important aspects of such a program.

An effort has been made to rank seven basic areas of competencies for teachers of the emotionally handicapped. The concept of a hierarchy immediately raises the question of priority of one competency over another. Since objectivity and flexibility are given the most important places in the model, would a teacher possessing these qualities but who is poor as a social reinforcer and curriculum expert be a better teacher of the emotionally handicapped than one possessing social reinforcement and curriculum skills but who is more subjective and rigid in his approach? No definitive answer to this or the other numerous possible comparisons can be given. The competencies within the hierarchy must be viewed collectively. Each is important. Certain teachers adequately compensate for limitations at a particular level and certain emotionally handicapped children respond best to teachers who are more competent in one area than in another.

The value of the concept of the hierarchy is in placing emphasis on the most basic competencies. Objectivity, flexibility, and structure are requisites for the resourceful teacher who functions effectively as a social reinforcer, curriculum expert, and intellectual model. In addition, the hierarchy attempts to aid recruiters, trainers, and prospective teachers in the field of education of the emotionally handicapped by replacing the vague and mystical notion of the gifted artist with a more objective concept of the trainable teacher.

REFERENCES

Haring, N., and Phillips, E. Educating Emotionally Disturbed Children, New York: McGraw-Hill, 1962

Hewett, F. "A Hierarchy of Educational Tasks for Children with Learning Disorders." Exceptional Children, 1964, 31, 207-214

Lord, F. and Kirk, S. "The Education of Teachers of Special Classes." in Forty-ninth Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press, 1950. Pp. 103-116

Mackie, Romaine, Kvarageus, W., and Williams, H. Teachers of Children Who Are Socially and Emotionally Maladjusted. Washington, D. C.: U.S. Department of Health, Education and Welfare, 1957.

CURRICULUM AND DISORDERED BEHAVIOR

by:

William C. Rhodes

Education can add an important dimension to the existing approaches to emotionally and socially maladjusted children. Its basic human concerns and major human goals differ quite radically from those of the clinically oriented professions. It is not concerned with cure or eradication of pathology and disease. It has no pills, no chemicals, no tranquilizers to be administered to sick organisms. Its methods all address themselves to positive drives - drives toward knowing, learning, discovering, exploring. It is concerned with liberating and catalyzing positive energies, potentials and capacities within the human being.

Education implies a ready to be born capacity in man which can be addressed or stimulated from the outside. It is a process which mediates between nature and nurture, exciting the interaction of one upon the other to bring forth new ways of being and reacting. It is a way of reconciling and transcending the claims of the individual and the claims of the culture.

Jacques Maritain has said that, "To liberate the good energies is the best way of repressing the bad ones......." and in this statement suggests the way in which education can provide a different dimension to approaches traditionally used with the socially, educationally and emotionally maladjusted child. The real art of education, he says, "is to make the child heedful of his own resources and potentialities for the beauty of well being."

To repress bad energies by liberating good ones, to make the child heedful of his own resources and potentialities has nothing to do with the art of positive thinking. The teacher expects to encounter resistance in the emotionally disturbed or socially maladjusted child. There is tension and resistance in all teaching-learning transactions. Learning demands change and the human organism resists change. Part of the teaching function involves resolution and transformation of resistance to change.

Despite the reality of strong resistance within the emotionally or socially maladjusted child, we can make the same assumption about him that we do for the average child. There are forces for growth, for exploration, for discovery within him. These motivations are every bit as real as basic tissue drives associated with thirst, hunger, sex, etc. We must prepare the lessons we direct toward this child in such a way that we engage such motivation. We must handle our human encounter with the child in such a way that avoidance behavior gives way to approach behavior and the child reaches out for the lesson presented him.

What are the lessons that the teacher offers the emotion- and socially maladjusted child? A lesson is a preparation for a particular kind of experience which the child needs in order to make him aware of and use his own resources and potentialities; an experience which releases positive energies and behaviors to replace destructive or discordant energies and behaviors. The lessons concern themselves with all aspects of behavior needed for living - particularly those behaviors crucial to living in the home, the school, the group, the community. We know that there are substantive skill deficits in the school behavior of the socially and emotionally maladjusted child. However, these are not the only areas in which he is in need of lessons. We must capture him in subject matter, but we must also transform relationships with authority, communication with other people, concepts of self, into constructive and positive new experiences for him.

We must concentrate upon existing disjunctions between the child and culturally cherished social organizations such as home, school, and community play units. We must locate, specify and recreate the site and conditions of his disjunction with the culture of these social organizations. The child is part of a social microcosm, with various acculturation media constantly harmonizing his demands with the demands of the culture. Within the organizational independence of each of these media are myriad opportunities for disjunctions between the demands of the child and those of the culture. If the particular disjunction occurs between the child and subculture of more than one of these organizations, we usually speak of emotional maladjustment. If it occurs outstandingly in the school, we usually speak of educational deficiency or educational maladjustment; and, if it is localized more particularly in the community, we talk about social maladjustment or juvenile delinquency.

The preparations for experiences at the site of the child's disjunctions from the crucial nucleus for the educational approach to the problems of emotional disturbance and juvenile delinquency. We should be guided by all we know about ways to prepare vital new experiences and ways to stabilize these in behavior. The form in which we plan the preparation and the patterning of the forms can be called the curriculum. The crux of the educational approach to emotional disturbance and juvenile delinquency, then, is contained in the preparations we make for the child to have constructive new experiences which will make him aware of and use his own resources, capacities and potentialties and which liberate positive motivations and behaviors within him. It is the experience - something actually happening to the child, within the child, in an important life episode - that is the heart of the educational task. In order to accomplish this task we must develop preparations which provide as ideal a medium as possible for the experience. We should have a set of guides or criteria against which to measure our preparations which provide as ideal a medium as possible for the experience. We should have a set of guides or criteria against which to measure our preparation. These can be distilled, derived or evolved from the composite of educational principles and crucial "learning" experimentation of great educational theorists and psychological theorists concerned with educational problems. A series of these developed and tried by the author are offered below as a tentative statement of guidance. Concrete examples and brilliant application of one guide or the other were found in Frobel (1909), Itard (1932), Montessori (1912), Seguin (1907), James (1938) Wolpe (1958), Eysenck (1960), and Jones (1958).

The author's current position holds that in order for the preparation to have maximum power and efficiency in insuring the intended experience, all of the guides are important for a single preparation or a series of preparations.

GUIDES TO PREPARATION FOR EXPERIENCES

1. We should prepare surroundings, circumstances, situations and events so that they excite new experiences in the child in relationship to old problems. We cannot act as though the child has had such an experience. We must conduct our preparations in ways that insure the experience. His responses will provide the cues to the

quality and intensity of the experience and will provide suggestions to the teacher for additional preparation.

2. The preparations must continue to surround the child with opportunities for new experiences which would strongly engage such excitatory motives as adventure, conquest, achievement, exploration, and discovery. The preparations might also associate the experience with positive satisfaction of tissue drives such as hunger, thirst and sex.

3. New experiences and newly developed abilities should ultimately be imbedded in events and settings very similar to those in which the child's responses have previously been a problem to himself and to others. The teacher can gauge the extent of success in approximating problem settings by the extent of transfer of qualitatively new behaviors to old problem situations.

4. If the child strongly rejects or avoids an approximate replica of the site and conditions of his disjunction, the teacher should decrease the similarity of the replica to the life setting until the child begins to respond positively to the replica. The aspects of the replica can then be prepared gradually to simulate the problem setting. The rate of approximation can be adjusted to the reactions of the child. As long as there is approach and intensity in the child's responses, the degree of similarity can be increased. When there is avoidance or when there is rejection by the child, the degree of similarity should be decreased until avoidance and rejection disappear.

5. Learning should be an active process in which the child has to do something with materials, conditions and surroundings. The more activity and manipulation required, the better the opportunity for a meaningful experience.

6. To increase the probability of excitation of new experiences in the child, the preparation should involve the engagement of as many sensory channels as possible As long as the child is responding favorably, the teacher may assume that the more sensory channels which can be engaged, the better the conditions for learning.

7. Learning requires repetition of experiences until new abilities and positive behaviors begin to stabilize. The repetitions should be pleasurable to the child and should involve constant new discovery. Preparation for repetition should be guided by the child's reactions. Rejection for repetition should be guided by the child's reactions. Rejection or rebellion would be a signal for caution. Continued rejection or avoidance would signal the need for change or termination. Approach and eagerness from the child would be a signal for the teacher to continue.

8. Preparations should include the child's control over those parts of the surroundings, circumstances or events which concern him most, or which he most wants to control. The control should be reduced only gradually as the child seems willing to relinquish it.

9. Preparations for experiences and development of new abilities should be channeled toward goals which the child cherishes and which can be culturally tolerated; and should always include elements which the child prizes.

10. The preparation for experiences should include natural and immediate consequences for the child's activity. The consequences should grow out of the lesson and should occur as soon as possible after the child performs in the lesson. It is very important that consequences early in the learning sequence should be satisfying and stimulating to the child. The child's behavior will inform the teacher of the quality of the consequences.

11. The preparations should require only performances which are in line with the child's present level of ability and accomplishment. In stimulating new experiences in the child, the teacher should nudge the child slowly up the gradient of achievement as increased mastery and challenge is apparent in the child's functioning.

12. It is important that the preparation for an experience should attempt to stimulate the child's awareness of the experience as it relates to his resources and abilities. The teacher should find ways to help the child reflect back upon the experience and its meaning for him so that it is bound as a permanent record within him. The teacher must test this out in many ways to be sure that there has been cognitive assimilation of the experience.

LESSON FORMS

There are many forms which the above preparations might take, and many patternings for the forms selected. I will discuss five forms which I have experimented with in curricula for socially, emotionally, and/or educationally maladjusted children.

THE UNIT.

The unit is a special form of preparation to induce specific experiences in a child. The unit is built around a theme which has dramatic appeal to a boy or girl in a particular age range. It should be a theme which has endless possibility for exciting positive motivations such as adventure, conquest, achievement, mastery or exploration. It should be a theme broad enough to incorporate many methods, activities, situations, etc. It should also be able to touch intimately upon the problem area of each individual. The theme can either be a substantive one such as "The Pioneers" or a psychological one such as "Fantasy." In either case we should weave together both substantive areas and psychological areas. Psychological areas would embrace hostility, family interactions, sex, love, triumph, etc.

The important orientation to keep in mind is that we are attempting to produce experiences in the child which will release and develop positive energies in place of negative ones and make him aware of and use his own resources and abilities in his future behavior. We are particularly interested in producing new positive experiences at the very site of his disjunctions with the culture. All of the preparations which have been discussed should go into the unit. You will remember that these include simulating circumstances in which the child has had difficulty, leading step by step, making the child very active, engaging many senses, repetion, giving the child a measure of control, utilizing goals and elements cherished by the child, providing for natural consequences, and beginning where the child is at the particular moment of the lesson. The purpose of the theme of the unit is to provide coherence, organization, and intrinsic relationship of experiences for the child.

BEHAVIOR TRAINING

This is a very old form which can best be exemplified in the methods used by Itard (1962) to retrain the wild boy of Aveyron to wear clothes, to eat "properly," to show affection for his guardian, to distinguish sounds, and to sense temperature differences.

This form can be much more effective if it will make use of experimental findings in psychology. This approach to behavior problems is not new, but it fell into disrepute during the period of extensive development of psychotherapy as the only way to deal with disjunctions between the child and his settings. It is beginning to emerge again as a useful method for modification of behavior.

An old example of this form is the conditioning procedure used by M. C. Jones (1924). She worked with a child who feared a white rabbit and had generalized this fear to all white, furry objects. The fear uas "unconditioned" by presenting the rabbit in the corner of the room while the child was eating, and slowly, over a period of days, moving the rabbit closer and closer. The child was gradually desensitized and the pleasure of eating seemed to have been associated with the rabbit.

A new example is the method used by Wolpe (1958). He evokes a response antagonistic to anxiety in a situation which is disturbing for a particular individual. The person is placed in the problem situation and Wolpe adds elements which produce anxiety-inhibiting responses such as anger, sexual excitement, relaxation, competing motor activity, and pleasure.

The method of behavioral retraining requires a careful specification of the problem setting or situation, the particular disjunctive behaviors involved, and the behaviors which would be more successful for the individual in that setting or situation. One then recreates crucial elements of the setting or situation; and establishes procedures which will extinguish disjunctive behaviors, substitute new behaviors in their place, or accomplish both behavioral goals at the same time.

In this form, the teacher is concerned with behaviors of crucial importance to the child's functioning in important life settings such as home, school and community. The preparation must be thought through carefully, structured economically, focused clearly, and aimed toward more specific goals than any other form. More detailed examples of this form are briefly reviewed in Rhodes (1962).

SKILL TRAINING

Another form, and one which teachers know very well, is skill training. It concentrates on basic subject matter skills, play skills and skills in human interaction which we call "manners." All of the preparations for experiences are important in the skill areas. The only emphasis that is crucial here is that there be special effort to appeal to the excitatory motives such as adventure, discovery, exploration, achievement, etc.

DISCUSSION SESSIONS.

Discussion is a supplement to experience and a cognitive replica of experience. It can be accomplished in a group situation or a person-to-person situation. Discussion is experience-dependent and age related. The child needs to have reached a certain developmental level and accumulated sufficient experience before the discussion can be useful to him. Therefore, it appears to be more effective for children over nine or ten years of age than for younger children. It provides a stimulus to reflection and rumination which binds the experience within the child and makes it available to future behaviors.

Discussion cannot substitute for experience, but it can add new interpretations and reflections. It can provide a form for release of motivations toward knowing, learning, discovery, and exploring. It can help make the child "heedful of his own resources and potentialities for well-being."

GROUP INTERACTION.

This involves teacher utilization of the flexible dynamics of functioning groups. Such group interaction cuts across all settings of the child's life. It offers a natural laboratory within which the child is constantly having to respond and interact, and in which he receives constant and immediate feedback on his behavior. The group presents ideal conditions for new experiences and new learning. All the excitation, cues, responses and rewards which he needs for new learnings are recurrently present. The sensitive problem areas in his functioning are constantly being stirred.

In the group the teacher has a succession of conditions and surroundings which require little structuring effort and a series of concrete behaviors which might be reflected back to the child. Having analyzed the necessary areas for release of the child's positive motivations and for creating an awareness of his own resources and abilities, the teacher can utilize the natural flow of events in the group to provide the appropriate lessons.

Now that I have talked about one kind of curriculum for socially, emotionally and educationally maladjusted children, let me raise an important issue for educators to consider.

THE ISSUE OF THE SETTING

While I believe that education has a unique contribution to make in this area, the contribution should not be bound to the stereotyped pattern of classroom or school. Teaching can and should occur in many settings. The more flexible the teacher is in being able to use many settings, the more influential the proposed curriculum could be. For instance, a truly effective teacher should be able to capture the junior gang members on the streets and offer needed lessons on street corners, in community centers, settlement houses, camps or parks. Teaching should be able, when necessary, to environ lessons with real life circumstances and should be able to make use of any setting or situation which would most likely engage and liberate positive motivations, potentials and capacities within the child at the very site of his disjunctions with the culture.

The only important criteria for the setting are: (a) how close is it to that in which the performance of the child will be crucial in the future; and (b) how effective is it in providing the right kind of nurture to catalyze the nature and resources of the child?

THE ISSUE OF SPECIAL TRAINING

It is not possible, in a single article, to deal with all the problems of the emerging area of educational approaches to disjunctive behavior. There are differing points of view about special teacher preparation which may have been raised by this article. However, all of the major ideas contained here can be found in a good history of educational theory and concepts.

The only exception might be newer concepts and methods of behavior training. This does not call for radically new training programs.

Historically, such great theorists as Herbart, Kant, Sequin, Montessori and James have left a permanent imprint upon the theory and method of education and psychology. Education and psychology already provide a substantive background for regular teacher training. It would seem, therefore, that the most parsimonious appraoch to teacher training in this special area would be a simple matter of making more effective use of this substantive background.

SUMMARY

The central theme of this curriculum discussion is the contribution which education can make to the problems of social and emotional maladjustment. The suggested educational approach was based upon two statements of Jacques Maritain: (a) the best way to repress bad energies is to liberate good ones; and (b) the art of education is to make the child heedful of his own resources and potentialities for the beauty of the well-being.

It was suggested that these two concepts be incorporated into lessons needed by the individual delinquent or emotionally disturbed child. The lesson was defined as a preparation for intense, positive experience within situations, circumstances, and conditions very similar to those in which the child has previously had trouble. The curriculum was presented as the form and pattern of forms which such preparations can assume. Several experimental forms were suggested. There are endless varieties and patterns of forms which could and should be tried. The ingenuity of the teacher will be one of the most crucial factors in their effectiveness.

REFERENCES

Eysenck, H.J. (Ed.) Behavior Therapy and the Neuroses. New York, Oxford, London, Paris: Pergamon Press, 1960.

Froebel, F. The Education of Man (Translated by W. N. Hailman) New York: D. Appleton and Co., 1909.

Itard, J. M. G. The Wild Boy of Aveyron. New York: Appleton-Century-Crofts, Meredith Publishing Co., 1962.

James, W. Talks to Teachers on Psychology. New York: Henry Holt and Co., 1939.

Jones, H. G. Neurosis and Experimental Psychology. Journal of Mental Science, 1958, 104, 55-62

Jones, M. C. A Laboratory Study of Fear. The Case of Peter Pedagogical Seminary (Journal of Genetic Psychology), 1924, 31, 308-315

Maritain, J. Education at the Crossroads. New Haven: Yale University Press, 1943.

Montessori, Maria. The Montessori Method (Translated by Anne E. George.) London: William Heinemann, 1912.

Rhodes, W. C. Psychological Techniques and Theory Applied to Behavior Modification, Exceptional Children, 1962, 28, 333-338.

Sequin, E. Idiocy and its Treatment. New York: Columbia University. Teachers College Educational Reprint, 1907.

Wolpe, J. Psychotherapy by Reciprocal Inhibition. Stanford, Calif: Stanford University Press, 1958.

SELECTED REFERENCES

Abrahamsen, David, Emotional Care of Your Child. New York, Trident Press (1969)

Association of Workers for Maladjusted Children. *Emotionally Disturbed Children:* proceedings of the Annual Study Conference of the Associateion of Workers for Maladjusted Children, Edinburgh, August, 1965. Edited by S. M. Maxwell. (1st ed.) Oxford, New York, Symposium Publications Division, Pergamon Press (1966)

Bayes, Kenneth. *The Therapeutic Effect of Enviornment on Emotionally Disturbed and Mentally Subnormal Children* (Old Working, Eng., Gresham Press, 1970)(1967)

Berkowitz, Pearl H. *ed.* *Public Education for Disturbed Children in New York City*; application and theory, Springfield Illinois, C. C. Thomas (c1964)

Blaine, Graham Burt *Emotional Problems of the Student by Graham* B. Blaine (and) Charles C. McArthur. Introduction by Eric H. Erikson, 2nd ed., New York, Appleton Century Crofts (1971)

Bower, Eli Michael *Early Identification of Emotionally Handicapped Children in School.* 2nd ed. Springfield, Illinois, Thomas, (c1969)

Clark, Donald Henry, 1930 ed. *Emotional Disturbance and School Learning* (by) Donald H. Clark (and) Gerald S. Lesser. Chicago, Science Research Associates.

Conference on the Education of Emotionally Disturbed Children Proceedings (1964) (Syracuse, N. Y.,) Division of Special Education and Rehabilitation, Syracuse University) (Each Volume has a distinctive title:)

1. *Educational Programming for Emotionally Disturbed Children*
2. *Intervention Approaches in Educating Emotionally Disturbed Children*
3. *The Teaching-Learning Process in Educating Emotionally Disturbed Children*

Clyne, Max B. *Absent: School Refusal as an Expression of Disturbed Family Relationships*, London, Tavistock Publications, 1966.

Dupont, Henry comp. *Educating Emotionally Disturbed Children* readings. New York, Holt, Rinehart and Winston, 1969

Faas, Larry A. comp *The Emotionally Disturbed Child a book of readings.* Springfield, Ill., Thomas. (1970)

Grossman, Herbert, *Teaching the Emotionally Disturbed*, a casebook, New York: Holt, Rinehart and Winston (1966, c1965)

Haring, Norris Grover *Educating Emotionally Disturbed Children* New York, McGraw Hill, 1962.

Harris, Irving D. *Emotional Blocks to Learning*; a study of the reasons for failure in school. New York, Free Press (1966, c 1961)

Harshman, Hardwich, W. Comp. *Educating Emotionally Disturbed*, a book of readings; New York, Crowell (1969)

Hewett, Frank M. *The Emotionally Disturbed Child in the Classroom*; a developmental strategy for educating children with maladaptive behavior, Boston, Allyn and Bacon (1968)

Laycock, Samuel Ralph. *Study of Educational Provisions For and Needs of Emotionally Disturbed Children in Elementary and Secondary Schools in British Columbia* (with assistance of J. A. Findlay.) (Vancouver, The Educational Research Institute of British Columbia, 1969)

Long, Nicholas ed. *Conflict in the Classroom:* The education of children with problems, edited by Nicholas J. Long, William C. Morse (and) Ruth G. Newman, 2nd ed. Belmont, Calif., Wadsworth Publishing Co. (1971)

Michigan (Bureau of Educational Services)(Library Division) Bibliography on Emotionally Disturbed. Lansing 1971.

Morse, William Charles. *Public School Classes for the Emotionally Handicapped*: a research analysis; by William C. Morse, Richard L. Cutler (and) Albert H. Fink. (Washington, Council for Exceptional Children, NEA, 1964)

One Million Children - The Celdic Report
Published by L. Crainford for the Commission on Emotional and Learning Disorders in Children, 1970

Pringle, Mia Lilly, (Kelliner) Deprivation and Education. 2nd ed. (Harlow) Longman (1971)

Rhodes, William C. *The Emotionally Disturbed Student and Guidance*. Boston, Houghton - Mifflin (1970)

Rubin, Eli. Z. *Emotionally Handicapped Children and the Elementary School* (by) Eli Z. Rubin, Clyde B. Simson (and) Marcus C. Betivee. Detroit, Wayne State University Press, 1966

Stone, Thomas E. *Organizing and Operating Special Classes for Emotionally Disturbed Children in Elementary School.*, West Nyack, N. Y., Parker Publishing Co. (1971)

Zachry, Caroline Beaumont *Emotion and Conduct in Adolesence*. For the Commission on Secondary School Curriculum, in Collaboration with Margaret Lighty. New York, Greenwood Press, 1968 (c1904)

DISCUSSION QUESTIONS

1. List the factors in a home which might result in behavior deviations in children. How can you explain the relationship of these factors to emotional disturbance?

2. Consider some of the major factors which are contributing causes of emotional disturbance. (a) List some of the implications suggested by these causes for programs of prevention. (b) Which of these factors are school related?

3. What preventative measures for maladjustment can you identify in your home community?

4. What are some possible resources at the provincial level?

5. How would you distinguish between emotional disturbance and social maladjustment?

6. The education and care of children with emotional problems is of interest to several professions. List them and indicate the particular role or roles which each plays.